

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62.47

INDEX

1914

APR 20 1914

INDEX

THE KANSAS CITY NURSERIES

GEO. H. JOHNSTON, *Proprietor*

OFFICE, ROOM 418

RELIANCE BUILDING

N.W. CORNER TENTH AND MCGEE

BOTH PHONES 370 MAIN

KANSAS CITY
MISSOURI

U. S. Department of Agriculture

FRUIT AND
ORNAMENTAL
TREES

GRAPE VINES,
SMALL FRUITS,
SHRUBS, PLANTS,
ROSES, ETC.

INDEX



FITZGFRALD PEACH (see page 11)



INDEX

KANSAS CITY NURSERIES

KANSAS CITY, MISSOURI



THE success of the Kansas City Nurseries is based upon their honest and liberal transactions with their customers. In the first place, we know our stock and can meet the demands of the purchaser; and in a well-managed and regulated institution this always means success.

Therefore, in presenting this Descriptive Catalogue we solicit your continued patronage, believing it is to your interest as well as ours for the following reasons:

INDEX

First. We have been in the nursery business for many years, thereby attaining a full and complete knowledge of what varieties are giving the best satisfaction in this locality; also of the best mode of propagating and growing stock, and of handling and caring for it when transplanting.

Second. It has been acknowledged by all who have visited our nurseries that we have the best assortment of beautiful and well-developed Evergreens, Flowering Shrubs, etc., that can be found in any nursery in the West. In this, we have accomplished our desire to be able to supply the western trade with western-grown stock.

Third. We are not making a specialty of growing a few sorts, such as apples, peaches and cherries, but have a general nursery, thereby enabling the purchaser to select from a complete assortment of fruit, deciduous and evergreen trees, flowering shrubs, vines, roses, bulbs, etc., that are of superior quality and at less cost than the same stock can be secured from eastern nurseries.

Fourth. Our location is in the center of a great fruit-producing country; new sorts are continually being tested, and either placed on the list as being worthy or discarded, thus enabling us to obtain the very best approved varieties.

Fifth. Kansas City is the acknowledged great railroad center of the West, making our railroad facilities for quick transportation for perishable goods one of the essential requisites. We are enabled to ship direct to all points without the risk of delay in transferring stock from one railroad to another.

Sixth. The advantages of our nursery-grown shade or street trees over those obtained from the forest. The transplanting of trees into nursery rows, together with the thorough cultivation they receive, cause them to form an abundance of root, making them more vigorous and healthy, and when transplanted by purchaser, they will make a strong growth from the start, thus enabling them to resist the hot rays of the summer sun.

GEO. H. JOHNSTON, Prop. (Successor to Blair & Kaufman)

418 Reliance Building, N. W. Cor. 10th and McGee

Both Phones 370 Main

KANSAS CITY, MISSOURI



Please Read Before You Order

In preparing this Catalogue it is our desire and aim to make the descriptions and time of ripening, etc., as accurate and intelligent as possible, and, in so doing, lend assistance to those desiring to make a selection, so as to obtain varieties suited to their locality, and also that a succession of ripening from the earliest to the latest be obtained.

ADVICE TO CORRESPONDENTS

Send in Your Orders as early as possible, so that there may be no delay at the time of shipment. All orders will receive prompt attention.

Use the Order Sheet. All orders should be written out on the order sheet and not mixed up in the body of the letter. This will save much trouble, and, at the same time, prevent mistakes.

In Ordering Fruit Trees, state whether standard or dwarfs are wanted; also the age, size and number desired.

Substitution. When particular varieties are ordered, state if substitution is allowed and to what extent, in case the order cannot be filled as ordered, as sometimes is the case in all nurseries. When no instructions are given, we will use our best judgment so as to render the best satisfaction to the customer.

Shipping Directions. Give explicit directions for marking and shipping stock. In case no directions are given, we will ship the cheapest and most direct route by freight, unless it is deemed safest and best to ship by express. In all cases, the shipment will be at the risk of the purchaser, and if delay or loss occurs in transit, the forwarders alone must be held responsible.

Orders from Unknown Correspondents must be accompanied with a draft, post-office or express money-order for the amount. If neither can be obtained, enclose currency in registered letter.

Errors. Customers are requested to send notice at once of any error that may be made in filling their order, so that it may be rectified and explained.

Articles by Mail. Packages of small articles will be sent by mail, postpaid, for the convenience of those who can not be reached by railroad or express.

The Shipping Season. There can be no definite time specified for beginning to ship, either in the spring or fall. That is regulated by the opening of the spring—early or late—and by the ripening of the stock in the fall; as the season for planting is not regulated so much by any particular month or day, nor by the state of vegetation, but more particularly by the condition of the trees to be planted. It is therefore better that orders be sent in early so the stock can be shipped or delivered at the proper season in good condition.

GUARANTEE OF GENUINENESS

While the greatest diligence and care to have all trees, etc., true to label, will be exercised, mistakes may occur, and, in such cases, upon proper proof, the trees, etc., will be replaced free of charge, or the amount refunded; but it is mutually understood and agreed to between the purchaser and ourselves that the guarantee of genuineness shall in no case make us liable for any sum greater than that originally paid for the trees, etc., that proved untrue, nor for damage.

Remarks

Great developments have been and are still being made in the creation of new fruits; and, while many of the new varieties have not maintained their first representations, some have proved even more valuable than was at first anticipated and must be considered as very valuable acquisitions. This is more especially so among the plums and small fruits. But, in examining a catalogue, one thing cannot help but be observed: that the old leading sorts still maintain their place at the very head of the list and, therefore, in the revision of this Catalogue, care has been taken to leave out such varieties as are not considered valuable, and only such varieties are given place as are now in general cultivation (some of which will succeed well only in certain locations), so that by a judicious selection from this list, a model orchard may be obtained.

Hints on Transplanting, Etc.

The natural place for the roots of trees and plants is in the ground, and as soon as they are exposed to the atmosphere and become too dry, they begin to lose their vitality; therefore, let it be kept in mind that too much care cannot be taken to protect their life and vitality while out of the ground, as a failure in this is often the cause of a feeble growth when transplanted. Poor growth is also caused by not having the ground in proper condition at time of transplanting and a lack of after-cultivation.

Soil—Its Preparation, Exposure, etc. Any soil that will grow good crops of corn and small grain will answer for fruit trees, etc. Eastern and northern exposures are usually considered the best, but perhaps more depends on the quality of the soil and its preparation and after-cultivation than on the exposure. If the ground is naturally wet, spouty and cold, artificial draining is necessary before planting. Any ground should be well prepared by twice plowing, using the subsoil plow after the common one at the second plowing, and stirring the ground 20 inches or more deep; the deeper the better. This is not only for trees, but small fruits as well. On good, rich soil, manuring will be unnecessary, but on thin or poor soil, fertilizers, such as decomposed manure or compost, should be applied freely. Never grow small grain in the orchard, but always some crop that will require thorough cultivation, and the rows of trees should be kept cultivated at least until the latter part of August.

Transplanting. When the trees are received, open the bundles and heel in, so that mellow earth will come in contact with all the roots. It may be necessary to apply water to moisten the soil. Before planting, the ends of all bruised and broken roots must be cut, sloping from the under side. If the soil is properly prepared, the holes need not be dug much larger than to receive the roots in their original position. In planting in sod, in yard or lawn, the hole should be dug 4 to 6 feet in diameter and a little deeper than is necessary to set the tree, always using good mellow soil in filling in, pressing the ground well about the roots, and in such a manner as to leave them in their natural position as much as possible. Water freely used in planting helps to settle the earth about the roots. Mulching, as soon as the tree is planted 3 or 4 inches thick, and 4 to 6 feet in diameter, should be applied, but the earth should be well pressed about the tree before applying the mulching.

Depth to Plant. About the only correct guide that can be given in regard to the depth to be planted is that when the ground is well pressed about the tree or plant it will be as deep or a little deeper than it stood in the nursery; and in this it is well to bear in mind that the roots of some trees, such as the standard pear, strike their roots deep, and require a deep hole, even to plant them as deep as they were in the nursery. Dwarf trees should be planted so that all the stock on which they are worked will be well under ground.

Pruning. Cut back one-third to one-half of last season's growth, and one-year-old peach to almost a bare stock, and headed back to the desired height, for forming the top; the buds on the body of the peach tree will make a better growth and form a better top than if the side branches are left on. It is not advisable to do this close pruning until just before the buds start in the spring. Remove the labels before the trees begin to grow.

Wintering Trees When Procured in the Fall

Procuring trees in the autumn for early spring planting is recommended when the purchaser is not prepared to plant in the fall or prefers spring setting, or where the winters are too severe to set out young trees or plants in the fall; the greatest advantages derived in doing so are that when the roots have been cut or pruned, it will be found, upon taking them up in the spring, that a callus has been formed ready for the producing of new rootlets, and the trees being planted without much exposure, as soon as the frost is out of the ground, will become thoroughly established the first season, and should make twice the growth of late-planted trees; and the labor of planting is then done before the rush of the spring work sets in. To insure success, select a dry spot of ground where water will not stand during winter, and there is no grass or litter that will invite mice.

Dig a trench from 3 to 4 feet wide, according to the amount of trees to be heeled in, deep enough to admit one layer of roots, and sloping enough to let the trees lie at an angle of about 30 degrees, throwing the earth on the back part of the trenches so as to make a more perfect slope on which to lay down the trees. Put in one layer of trees, placing the roots as close together as can conveniently be done, cover with well-pulverized soil, well up on the bodies and as carefully worked in about the roots as if they were being planted; then add another layer of trees, overlapping the first, and continue as at first until all are heeled in, throwing the ground well up around the trench; and where the winters are very severe it is advisable to cover the trees entirely up with earth. Evergreen boughs, coarse straw, or corn fodder can be placed over the tops, but not thick enough to furnish a harbor for mice. The roots should be pruned before laying them down in the fall.

Treatment of Trees, Etc., That Have Been Frozen in the Packages or Received During Frosty Weather

Put them unopened in a cellar or some other cool, protected place, free from frost; or cover them up heavily or entirely with earth until they are fully thawed out, when they can be unpacked and planted or placed in trenches until convenient to plant. Treated in this way they will not be injured by the freezing.

Suitable Distance for Planting

	Feet		Feet
Apples, Standard.....	25 to 40	Grapes.....	6 by 8
Apples, Dwarf.....	6 to 8	Currants.....	3 by 4
Pears, Standard.....	18 to 20	Gooseberries.....	3 by 5
Pears, Dwarf.....	10 to 12	Raspberries, Red.....	2½ by 6
Peaches.....	16 to 18	Raspberries, Black.....	2½ by 7
Nectarines and Apricots.....	16 to 18	Blackberries.....	3 by 8
Cherries, Sweet.....	18 to 20	Strawberries, Rows.....	1 by 3½
Cherries, Sour.....	16 to 18	Strawberries, in beds.....	1½ by 1½
Plums.....	18 to 20	Asparagus, in beds.....	1 by 1½
Quinces.....	8 to 10	Asparagus, in field.....	1 by 3

Number of Trees and Plants on an Acre at Various Distances

1 x 1 ft.....	43,560	5 x 5 ft.....	1,742
2 x 1 ft.....	21,780	6 x 6 ft.....	1,210
2 x 2 ft.....	10,890	8 x 8 ft.....	680
3 x 1 ft.....	14,520	10 x 10 ft.....	435
3 x 2 ft.....	7,260	12 x 12 ft.....	302
3 x 3 ft.....	4,840	15 x 15 ft.....	193
4 x 1 ft.....	10,890	16 x 16 ft.....	170
4 x 2 ft.....	5,445	18 x 18 ft.....	134
4 x 3 ft.....	3,630	20 x 20 ft.....	108
4 x 4 ft.....	2,722	25 x 25 ft.....	69
5 x 2 ft.....	4,356	30 x 30 ft.....	48
5 x 3 ft.....	2,904	33 x 20 ft.....	66
5 x 4 ft.....	2,178		

The number of plants required for an acre, at any given distance apart, may be ascertained by dividing the numbers of square feet in an acre (43,560) by the number of square feet given to each plant, which is obtained by multiplying the distance between the rows by the distance between the plants. Thus, strawberries planted 3 feet by 1 foot gives each plant 3 square feet, or 14,520 plants to the acre.



Fruit Department

The habit of growth is indicated by "Mod.," "Free," "Vig.," "Slow," at end of description, meaning moderate, free, vigorous or slow growers.

The season of ripening after habit of growth, embraces that portion of country between parallels 39 and 40. This takes in Dayton, O., Indianapolis, Ind.; Springfield, Ill.; Kansas City, Mo.; and Topeka, Kans. The season of ripening will be earlier or later in proceeding South or North.

Directions for spraying will be found in the last pages of this Catalogue.

APPLES

The past few years have witnessed the shipment abroad of thousands of barrels of American Apples. They are the first fruit both in importance and general culture. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, fall and winter sorts, a constant succession can be had of this indispensable fruit.

Summer Apples

Astrachan Red. Large, roundish, beautifully marbled with crimson, covered with a heavy bloom; a good bearer. Free. July.

Benoni. Medium, roundish; pale yellow, shaded with crimson; juicy, tender and subacid. August

Carolina Red June (Red June). Medium; red; the flesh is white, tender, juicy and subacid. The tree is an abundant bearer. Last of June.

Chenango Strawberry (Sherwood's Favorite). Medium, oblong and indistinctly ribbed; skin whitish, splashed and mottled light and dark crimson; the flesh is white, tender and juicy, with a mild, subacid flavor. Valued for the table. Its handsome appearance commands a quick sale in the markets. Vigorous and a good bearer Aug. and Sept

Cooper's Early White. Very large, roundish; pale yellow, with faint blush; flesh

white, crisp and sprightly. Originated in the West. Vig. First of Aug.

Duchess of Oldenburg. A Russian variety of medium to large size, of good shape; skin yellow, streaked with red, somewhat blushed, and sometimes with a faint blue bloom; flesh juicy, and good, with a rich subacid flavor. One of the best for culinary use, being well adapted for cooking and drying. Productive. Slow. Aug.

Early Harvest. Medium to large, roundish; bright straw-color; flesh white, tender, juicy, crisp, with rich subacid flavor. The tree is moderately vigorous and productive. An excellent variety for both orchard and garden. First of July.

Sweet June (High Top Sweet). Medium round; pale greenish yellow; very sweet, pleasant, rich and tender. Mod. June 25 to July 15

Sweet Bough. Large; pale greenish yellow; flesh tender and sweet; moderate grower and good bearer. July

SUMMER APPLES, continued

Yellow Transparent (Russian Transparent, Grand Sultan). A Russian variety, imported in 1870, through the Agricultural Department. Pronounced by some who have seen it as the best early Apple ever produced. Ripens with Early Harvest and the fruits will keep fully ten days after ripening, making it valuable for early shipping. Fruit of medium size and good quality; skin clear white, changing to beautiful yellow when ripe. Slow.



DUCHESS OF OLDENBURG

Autumn Apples

Bailey's Sweet. Large, round; mottled and striped deep red; flesh yellow and tender, with a mild, rich, sweet flavor. Slow. Sept.

Hawley. Large, roundish, oblate, conical; skin yellow, somewhat waxen or oily, and dotted; flesh whitish, very tender, juicy, rich, mild subacid. Vig. Sept.

Lowell (Orange). Large, roundish, slightly conical, green, becoming rich yellow, with an oily surface; the flesh is yellowish white, subacid and excellent. A good bearer. Free. Sept.

Maiden's Blush. Rather large, oblate, smooth and regular; pale yellow, with beautiful red cheek; flesh white, tender, sprightly, with a pleasant subacid flavor. An abundant bearer. Free. Aug. and Sept.

Munson's Sweet. Large; pale yellow, with red cheek; tender, rich and good. Fine bearer. Vig. Sept.

Rambo. Medium; yellowish, streaked with dull red and somewhat dotted; mild, tender and good. The tree is productive and vigorous. Sept. to Nov.

Wealthy. A native of Minnesota, and one of their hardy sorts. An Apple of fine appearance and good quality; in size it equals the Baldwin, and is better for

Wealthy, continued

dessert. One of the most productive varieties, sometimes almost killing itself with its early and excessive bearing. Valuable for market.

Winter Apples

Ben Davis (New York Pippin). Medium to large, roundish; skin yellowish, splashed and striped and almost covered with red; the flesh is white, tender, moderately juicy,

subacid. The tree is very hardy, a free grower, and comes into bearing early. A valuable feature is its blooming late in the spring, thereby escaping late frosts. Highly esteemed in the West. Dec. to March.

Grimes' Golden (Grimes' Golden Pippin). Medium to large in size, and of the highest quality. A bright yellow Apple, which grows and bears well in every section of the country. Hardy, vigorous and productive. Nov. to Dec.

Gano. Originated in Missouri. Large, oblong, tapering to the eye; the fruit is bright red on yellow ground, with no stripes, flesh pale yellow, fine-grained, tender, pleasant, mild subacid. The tree is healthy, vigorous, hardy and an early and annual bearer. Jan. to April.

Huntsman's Favorite. This variety also originated in Missouri. Very large; golden yellow, with bright red cheek; nearly sweet, of fine

flavor and very aromatic. Tree healthy and moderately productive. Vig. Nov. to Jan.

Ingram. A seedling of Janet. Medium, roundish, inclined to conical, smooth; yellow ground, striped bright red; flesh greenish yellow, delicate, tender, juicy, subacid. A late keeper.

Jonathan. Medium, roundish; skin yellowish, nearly covered with dark or lively red; fine-grained, very tender and finely flavored. Mod. Oct. to Dec.

Little Romanite (Gilpin Carthouse). Medium size, roundish, oblong; the skin is very smooth and handsome, streaked with deep red and yellow; flesh yellow, firm, rich, becoming tender in spring. Hardy and productive. Vig. Feb. to June.

Mammoth Black Twig. Fruit large, often measuring 12 inches in circumference. Excels Winesap in nearly every important point, the color being even a darker red, the flesh firmer, flavor milder, but fully equal. The tree is a fine, upright, spreading grower, and bears large crops and holds fruit well. Vig. Nov. to April.

Minkler. Fruit medium, roundish, oblate, slightly conical; pale greenish yellow, striped and splashed with two shades of red; flesh yellowish, compact, moderately juicy, mild, pleasant, subacid. The tree is an irregular grower. Vig. Jan. to April

WINTER APPLES, continued

Missouri Pippin. Large, oblong; bright red, with numerous gray dots; very handsome and of fair quality. Early and immense bearer. A good orchard Apple. Vig. Dec. to March.

Northwestern Greening.

Of Wisconsin origin. The fruit is of good size; smooth, yellowish green; quality mild pleasant subacid, aromatic. Very good and an extra-long keeper. Tree hardy, vigorous, and an abundant annual bearer. Jan. to June.

Rawle's Janet (Never Fail).

Medium, roundish, ovate; greenish yellow, striped with red; crisp, rich and juicy. The tree is very vigorous and spreading, coming into bloom later than most varieties, thereby avoiding late frosts. Much cultivated in the South and Southwest. Mod. Jan to May

Roman Stem. Medium; whitish yellow, splashed with russet; has rich, pleasant, musky flavor; flesh tender, juicy. Fine dessert Apple. Mod. Nov. and Dec.

Stayman's Winesap. Medium size, round, approaching conical; skin smooth, greenish yellow, splashed and striped with red and purple; flesh yellow, firm, tender, juicy, rich, mild, subacid and aromatic. An early bearer and very productive. Jan. to May.

Talman's Sweet. Medium; pale yellow; firm, rich and sweet. Valuable for baking. Vig. Oct. to Dec.

Willow Twig. Large, roundish; greenish yellow, striped with dull red; flesh firm,



MAMMOTH BLACK TWIG

rather tough. Very popular in the South and West. Valuable on account of its late-keeping qualities. Mod. Jan. to May

Winesap. Medium; dark red; subacid. Tree an abundant bearer. One of the finest cider Apples grown, both on account of its overabundance of juice and its productivity. Vig. Nov. to April.

Wolf River. Very large and handsome; flesh whitish, breaking, pleasant, subacid. An Apple peculiarly adapted to the West on account of its hardness. A good bearer. Nov. and Dec.

York Imperial. Medium, oblate; white, shaded with crimson; flesh firm, crisp, juicy and subacid. A splendid bearer and keeper and equally valuable for the table or for cooking. Mod. Nov. to April.

Crab Apples

Within the past few years much attention has been given to the improvement of this class of fruit. A few years ago it was considered fit only for cider, preserves and jelly, but there are varieties now that command a good price on the market for dessert purposes; especially is this the case with the Whitney. They are also very ornamental when in bloom. The following are the most valuable varieties:

General Grant. Fruit large; red to very dark red; flesh white; tender, mild, subacid. Fine for dessert. Free. Oct



INGRAM APPLE

CRAB APPLES. continued

Hyslop. Almost as large as Early Strawberry Apple; deep crimson; flesh inclined to yellow, sub-acid. Popular on account of its large size, beauty and hardness. Vig. Sept. and Oct.

Large Red Siberian. About an inch in diameter and grows in clusters; yellow, lively scarlet cheek. Tree large with coarse foliage; bears young. Vig. Aug. and Sept.

Martha. A new fruit raised from the seed of Duchess of Oldenburg. Resembles the Transcendent, but larger and earlier. A fine fruit as well as being very ornamental. The tree bears enormously every year. Sept. and Oct.

Transcendent. The fruit is from $1\frac{1}{2}$ to 2 inches in diameter; skin yellow, striped with red; the tree is perfectly hardy and a young and abundant bearer. Vig. Aug. and Sept.



LARGE RED SIBERIAN CRAB APPLES

Whitney's No. 20. One of the largest; skin smooth, glossy, green, striped and splashed with carmine; flesh firm, juicy and rich. Makes fine white cider. Tree a vigorous handsome grower, with dark green glossy foliage. Aug. and Sept.

PEARS

The growing of this noble fruit is rapidly extending as its value is appreciated, and the demand for it, both green and dried, is increasing every year. It far exceeds the apple in its melting, juicy texture, rich, refined flavor and the range of varieties is such that by a careful selection, the ripening season, beginning in July, can be continued in succession into winter. It is a mistaken idea that Standard Pears are a long time coming into bearing; many varieties begin to bear in from four to six years after transplanting, and some of the varieties, such as Kieffer, will produce fruit as soon as the dwarf Pear; which is usually two to three years after transplanting. The Pear when once in bearing seldom fails to produce a crop of fruit annually.

GATHERING PEARS. In order to retain the juice and best flavor, Summer Pears should be gathered at least ten days before they are ripe, and autumn Pears at least two weeks; winter varieties, as soon as the leaves begin to drop.

THINNING THE FRUIT. When the trees are heavily laden, the fruit should be thinned when about one-third grown, or the fruit will be poor and the tree injured.

The letters "D" and "S" following the variety indicate favorable growth either as "Dwarfs" or "Standards" or both. Those designated as moderate growers are usually smaller trees.

Summer Pears

Bartlett. D. and S. Large, often with a beautiful blush to the sun; buttery, juicy and high-flavored. The beauty, size and excellence of the fruit and productiveness of the tree leave little to be desired and make it very popular. Vig. Aug.

Bloodgood. D. and S. Medium; yellow, touched with russet; rich and delicious. Free. July

Clapp's Favorite. D. and S. A large Pear, resembling the Bartlett. Skin yellowish green, changing to yellow when ripe, marbled with dull red in the sun, and covered with small russet dots; vinous, melting and rich. Tree hardy and very productive. Vig. July.

Koonce. S. Medium to large; surface yellow, one side covered with a bright carmine, dotted with brown; spicy, juicy, sweet, and does not rot at the core; of good quality. The tree is a strong grower, heavy bearer, and said to be free from blight. July and Aug.

Wilder Early. Medium; greenish yellow, with a brownish red cheek and numerous dots; flesh white, fine-grained, melting, excellent. One of the best keeping early Pears. Ripens about three weeks earlier than Bartlett.



WORDEN SECKEL PEAR

Autumn Pears

Beurre d'Anjou. D. and S. A large, fine Pear. Greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh white, buttery, melting, with a high, rich, vinous flavor. The tree is very productive and succeeds well on quince. One of the very best Autumn Pears. Vig. Sept. to Dec.

Duchesse d'Angouleme. D. Very large; dull greenish yellow, streaked and spotted with russet; flesh white, buttery and very juicy, with a rich and excellent flavor. Always fine on the quince to which it seems well adapted. A general favorite on account of its large fruit and fine appearance. Vig. Sept. and Oct.

Flemish Beauty. D. and S. Large; red-cheeked; juicy, melting, rich and fine. A beautiful variety. A good bearer and hardy everywhere. Vig. Aug. and Sept.

Garber's Hybrid. S. Akin to and very much resembles the Kieffer, but is larger, of better quality, and ripens two to three weeks earlier. Yellow as an orange; juicy and rich. The tree is very productive and bears three years after transplanting. Esteemed for market. Sept.

Howell. D. and S. Large; light, waxed yellow, with a fine red cheek; rich, sweet and melting, perfumed, with an aromatic flavor. Tree an upright, free grower, and an early and profuse bearer. Hardy. Vig. Aug. and Sept.

Kieffer's Hybrid. S. Raised from the seed of the Chinese Sand Pear, accidentally

Kieffer's Hybrid, continued

crossed with the Bartlett, or near it. Of all Pears grown for commercial purposes it is the leader. The fruit is of good quality, wonderfully showy, never rots at the core, and is valuable for the table or market. The tree has large, dark green glossy leaves, which make it very ornamental, is an early and prolific bearer, and is as nearly blight-proof as it is possible for any Pear to be. Vig. Sept. and Oct.

Louise Bonne de Jersey. D. Rather large; greenish yellow, with a bright red cheek juicy, buttery and melting. Very productive. Vig. Aug. and Sept.

Seckel. D. and S. Small, but of the highest flavor. Skin rich yellowish brown when ripe, with a dull brownish red cheek; flesh very fine-grained, sweet, very juicy, melting and buttery. Vig. Aug. and Sept.

Worden-Seckel. D. and S. A seedling of the Seckel. Fruit medium size, borne in clusters; juicy, buttery, fine-grained, with a flavor and aroma equal to that of its parent, which it surpasses in size, beauty and keeping qualities. Oct.

Winter Pears

Lawrence. S. Rather large; yellow, covered with brown dots; flesh whitish, slightly granular, somewhat buttery, with a rich, aromatic flavor. Among the winter Pears it has no equal. Succeeds well on the quince. The tree is healthy, hardy and productive. Easily ripened. Free. Nov. and Dec.

PEACHES

To secure healthy, vigorous and fruitful Peach trees, it requires a well-drained, moderately rich soil, which must be kept clean and mellow,—warm, sandy loam is probably the best. Peaches are all borne on wood of the previous season's growth, and this makes it absolutely necessary to prune the trees every year or two, so as to preserve a round, vigorous head. Remove all dead branches. The land should not be seeded to grass, but kept in constant cultivation.

The following have been selected as the best varieties. They furnish a succession for over three months, commencing about July 1st.

Alexander Early. Large, sometimes measuring 8 inches in circumference; nearly round; deep maroon, covered with rich tints of crimson; flesh white, juicy, vinous and firm, adhering slightly to the stone. Should remain on the tree until fully ripe. Last of June.

Amsden. Medium; red, shaded and mottled with dark red, nearly covering the greenish white ground. If left to ripen on the tree, the flesh is white, with a delicious flavor. Middle to end of June.

Admiral Dewey. Flesh yellow, of uniform color and texture to the stone. Ripens with Triumph, but has better form and brighter color on the surface; the tree is equally hardy and productive, and a strong, symmetrical grower.

Blood Cling. Large; dark claret, with veins; downy; flesh deep red, very juicy and of fine flavor. The tree is an irregular grower. Oct.

Blood Free. The fruit is medium to large; blood-red throughout; hardy and a good bearer.



MOUNTAIN ROSE PEACH (see page 11)



ELBERTA PEACH

PEACHES, continued

Bokhara No. 3. Raised from seed received from Bokhara, Asia. Fruit measures over 7 inches in circumference, yellow, with red cheek; skin tough; flesh of good quality. The hardest Peach known; has produced fruit where the temperature has been 28 degrees below zero. A perfect freestone.

Captain Ede. Said to be an improved Elberta, ripening 10 days earlier. Large, yellow, and of excellent quality.

Champion. A western Peach of very large and good quality. Skin creamy white, with red cheek; delicious, sweet, rich and juicy. Extremely hardy, having stood a temperature of 18 degrees below zero in the winter of 1887-8, and produced an abundant crop the following season, and again in 1890, producing a full crop when the Peach crop was a universal failure. Freestone.

Chinese Cling. A favorite Peach in the South. Large size, oblong; the skin is creamy white, with faint flashes of red. August.

Crawford's Early. A magnificent, large, yellow Peach that is considered very valuable for market purposes. The skin is yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent. Tree very productive. Free Last of July.

Crawford's Late. Fruit of the largest size; skin yellow, or greenish yellow, with dull red cheek; flesh yellow. Tree vigorous and productive. One of the finest late sorts Free. Last of Aug. and Sept.

Chair's Choice. A large and handsome late yellow Peach, with conspicuous red cheek; the flesh is rich in color, and very firm, juicy and melting. As a commercial Peach it is without a rival. The tree is a great bearer. Ripens after Smock.

Crosby. Fruit medium size; bright orange-yellow, streaked with carmine; flesh rich luscious and sugary. An excellent market sort on account of its handsome appearance. Claimed to be the hardest of all Peaches. Freestone with an exceedingly small pit. Sept. 10.

Carman. Large, resembling the Elberta in shape. Creamy white or pale yellow, with deep blush; skin tough; its flesh is white, rich, tender and melting. One of the hardest in bud. Fine for shipping and is considered one of the best for market. Ripens with Early Rivers. July.

Early Rivers. Large; light straw-color, with delicate pink cheek; flesh juicy and melting, with rich flavor. First of July.

Elberta. Introduced from Georgia. A cross between Crawford and Chinese Cling. Very large. It is the ideal market Peach, and a royal fruit from its yellow and red skin to its red stone. The fruit is perfectly free from rot, and one of the most successful shipping varieties. Freestone. Aug. 20.

Foster. Large; deep orange-red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with subacid flavor. Ripens earlier than the Early Crawford and superior in many points. Free.

PEACHES. continued

Family Favorite. A seedling of Chinese Cling. Large; clear waxen complexion, with bluish; flesh firm. The tree is very productive. Highly esteemed for shipping, canning or drying. Free. Last of July.

Fitzgerald. Originated on the north shore of Lake Ontario, and in that cold region the original tree bore five successive crops. Of very large size, magnificent quality and a perfect freestone. Skin bright yellow, suffused with red; flesh deep yellow. The tree bears the second year from planting. Aug. 10.

General Lee. An improved Chinese Cling. A very valuable variety. Aug. 20.

Globe. A Pennsylvania variety of great size and beauty. An improvement on Crawford's Late. Rich golden yellow, with red bluish; flesh yellow and juicy. Free. Aug.

Greensboro. The largest and most beautiful of all early Peaches. It is covered with light and dark crimson, shaded with yellow; the flesh is white, juicy and good, and parts clean from the seed when fully ripe. Ripens with Alexander.

Henrietta (Levy). A magnificent cling of large size; the skin is deep yellow, covered with bright crimson; flesh yellow, firm, juicy and sweet. The tree is hardy, productive and a sure bearer. A first-class market sort. Sept. 25.

Heath Cling. Large, oblong; creamy white, slightly tinged with red in the sun; tender, juicy, melting, rich and luscious. A popular sort. Sept. 15.

Mammoth Cling. Resembles the above, but double the size. Valuable for preserves. Promises to be superior in every way to Heath Cling. Sept. 20.

Mountain Rose. A superb early, white-fleshed Peach, which yearly adds to its reputation as the best of its season for home or market. Red; rich, juicy, excellent. Ripens with Troth's Early, and much larger and finer than that variety. Free. July.

Mamie Ross. Very large, oblong; color similar to Chinese Cling, of which it is no doubt a seedling, with more red cheek. With us it is one of the best early clingstones, ripening about with Early Crawford.

Oldmixon Cling. Large; pale yellow, with deep red cheek; juicy, rich and high-flavored. A favorite clingstone. Aug. 20.

Oldmixon Free. Similar to the above, with the exception that it is a freestone. Aug.

Picquet's Late. A large, late Peach, which originated in Georgia. Yellow, with red cheek. Flesh yellow, melting, sweet and of the best flavor. Freestone. Sept.

Reeve's Favorite. Thoroughly tested and holds a place among knowing orchardists as one of our very best mid-season yellow freestone varieties. The fruit is very large and round; skin yellow, with a fine red cheek; flesh yellow, melting, juicy and excellent. Tree hardy and productive. Very valuable for market. Last of July.

Salway. A rather large, roundish yellow freestone, with a deep marbled brownish cheek; the flesh is yellow, firm, juicy, rich and sugary. A late showy market variety of English origin. Last of Sept.

Smock Free. Fruit large, oval; skin orange-yellow, mottled with red. An excellent variety for market. Sept. 15.

Sneed. It is claimed for this remarkable Peach that it is fully ten days earlier than the Alexander, belonging to an entirely different type. It is medium in size, the color being white, with flush on cheek. As an early market variety it is one of the most valuable grown.

Stump-the-World. Large, roundish; creamy white, with red cheek; flesh white, juicy, highly flavored. Free. End of Aug.

Triumph. The first yellow Peach to ripen, with good eating and shipping qualities. Fruit of good size, yellow, with red and crimson cheek. Being the earliest Peach so far known, it brings high prices in the markets. Ripens with Alexandra.



SNEED PEACHES

PLUMS

Diseases and Enemies of the Plum. The prevalence of the disease of the Plum commonly known as the "Black Knot," which has so much discouraged people in the eastern states from giving to the Plum its merited share of attention, has as yet done but little damage west of the Mississippi river, but its appearance should be guarded against, and its ravages prevented by keeping the trees in a healthy condition, which is done by good cultivation, and removing the knot by amputation on its first appearance. Nothing is more favorable to the growth of the black fungus or knot than neglect. But the great enemy of the Plum is the insect known as the Curculio, a small, dark brown beetle which punctures the fruit in depositing its egg from which is hatched the destructive grub, and causing the fruit to drop prematurely and rot. Two ways of destroying this Curculio and saving the crop of fruit are recommended, viz.:

First.—Spread a large sheet prepared for the purpose under the tree and then jar the tree so as to shake down all fruits that have been stung, as well as all Curculios; both insect and stung fruit are destroyed. Begin to do this as soon as the blossoms fall, and keep it up daily, or at least tri-weekly, until the fruit is half grown. The morning is the best time to do this when the insect is chilled and stupid.

Second.—The best remedy and the one generally adopted now doubtless is the spraying of the trees, directions for which are given in the last pages of this Catalogue. If those who really desire to grow fine crops of this most delicious fruit will try either of these systems and follow it up rigidly, they will be successful.

European Plums

Bradshaw. Very large; dark violet-red; flesh yellowish green, juicy and pleasant. Productive. Vig. Middle of Aug.

Damson. Small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. Mod. Sept.

German Prune. A large, long, oval variety much valued for drying; the color is dark purple; agreeable flavor. Vig. Sept.

Lombard (Bleeker's Scarlet). One of the most widely cultivated Plums in America. Of medium size, round, oval, violet-red, juicy, pleasant and good; adheres to the stone. Free. Vigorous and quite hardy. Valuable for market. Vig. Last of Aug.

Shipper's Pride. Originated in northwestern New York, and has never been known to freeze back a particle in the coldest winters. The fruit is large, dark purple; flesh firm and of excellent quality. Splendid for shipping or market. Vig. First of Sept.

Shropshire Damson. As free from the attacks of the curculio as the common Damson of the same color, and commands nearly double the price. Flesh amber, juicy and sprightly. Productive. Free. Last of Sept.

Native American Plums

Arkansas Lombard. An improvement on the Wild Goose and far superior in flavor. Fruit yellow, with red blush; flesh firm, meaty and luscious. Trees are vigorous and enormous bearers. Ripens two weeks later than Wild Goose. July.

Pottawattamie. Fruit yellow, overspread with a bright pink and white dots; flesh yellow, luscious and good. The tree is perfectly hardy and an immense early annual bearer. July.

Wild Goose. Large; rich crimson; flesh soft, rich, melting, delicious, with a full, fruity flavor. The tree is a strong grower and very prolific. July.

Japanese Plums

These Plums have awakened more interest the past few years than any other recent type of fruit. They are of great beauty and productiveness. The fruit is firm and meaty and will keep for a long time, making them valuable for long-distance shipments. The fruit is exquisitely perfumed, with a charmingly attractive bloom.

Botan (Abundance). One of the best Japanese Plums. It is one of the imported varieties, being catalogued by some under the name of Abundance on account of its wonderful bearing qualities. The fruit is large, handsome, and practically curculio-proof; lemon-yellow ground, nearly overspread with bright cherry, and with a heavy bloom; flesh orange-yellow, melting, rich and highly perfumed. The tree is an early and profuse bearer. July.

Burbank. A beautiful, large Plum, of nearly globular form. The color is clear cherry-red, with a thin lilac bloom; flesh deep yellow, very sweet,



GERMAN PRUNE

Japanese Plums, Burbank, continued with a peculiar and very agreeable flavor. The tree is vigorous, with strong, upright shoots, and commences to bear annually two years from planting. It blooms late and escapes the late spring frosts.

Red June. Medium to large; deep vermilion-red, with handsome bloom; flesh light lemon-yellow, slightly subacid, of good and pleasant quality; half-cling; pit small. The tree is vigorous, hardy, upright, spreading, and as productive as Abundance. Ripens a few days after Willard, and is one of the most valuable of the early varieties.

Wickson. Originated by Mr. Burbank, who says: "Among the many thousand Japanese Plums I have fruited, so far, this one stands preëminent." The largest of this class; the color is deep crimson, covered with a light bloom; flesh tender, sweet and delicious; pit small. The tree is a vigorous grower and an early and profuse bearer. Ripens just after Burbank

Willard. Earliest of all the Japanese Plums, which makes it very valuable for market. Fruit of medium size, spherical to oblong; bright claret-red, with many minute dots; flesh firm, white; freestone. Strong, vigorous, hardy tree, and very productive. The fruit is very handsome when well ripened.



BURBANK PLUM

CHERRIES

There are few more desirable trees than the cherry, and they are being planted in larger quantities every year. No orchard is complete without its proportion of this fruit. It will succeed on any kind of soil that is dry.

The Heart and Bigarreau varieties do not succeed so well in the West and Southwest as in the East, but the Dukes and Morellos succeed everywhere. Cherries are now generally worked on the Mahaleb, a stock that does not throw up sprouts from the roots.

Heart and Bigarreau Cherries

Black Tartarian. Very large; bright purplish black; juicy, very rich, excellent flavor; half tender. Productive. Vig. First of June.

Governor Wood. Very large; light red; juicy, rich and delicious. Tree healthy and a great bearer. One of the most valuable varieties. Vig. First of June.

Napoleon Bigarreau. A magnificent Cherry of the largest size. Pale yellow or red; flesh firm, juicy and sweet. Very productive. One of the best for market or canning. Vig. Middle of June.

Duke and Morello Cherries

Dyehouse. Resembles Early Richmond, but is of finer of quality, quite as productive, and ripens a week earlier. It partakes both of the Morello and Duke, wood and fruit Free. May and June.



WRAGG CHERRIES (see page 14)

DUKE AND MORELLO CHERRIES, continued

English Morello. Medium to large; blackish red; rich, acid, juicy and good. Very productive. Mod. July.

Early Richmond (Kentish; Virginian, or Early May). The most hardy of all Cherries, uninjured by the coldest winters when almost every other variety has been killed. Medium size; dark red; melting, juicy, sprightly acid flavor. Exceedingly productive. Unsurpassed for cooking and the most popular of the acid Cherries. Free. First of June.

Large Montmorency. A Cherry of the Richmond class, but larger and more solid, and fully ten days later. Fruit red, acid. Free. Middle of June.

Lutovka. One of the most promising of the new late sour Cherries, received at the New York Agricultural Experiment Sta-

Letovka, continued

tion. It is a Russian sort of the Morello type. Fruit firm, of good quality, sprightly acid, as large as English Morello and similar to that variety in color, with the flesh not so dark. Very productive. Ripens a little later than English Morello.

Ostheimer (Ostheimer Weichsell). Fruit large, dark liver-colored when fully ripe. This variety has done remarkably well and is the Cherry for the West. A good grower, bears early and is very productive. A most valuable and profitable sort.

Wragg. Originated in Iowa. A variety much like English Morello, but larger, better and hardier. Medium to large, long stem; dark purple when fully ripe. Well adapted for the high latitude and prairie regions of the Northwest. July.

NECTARINES

A most delicious, smooth-skinned fruit, which thrives wherever the peach will grow. Liable to be stung by the curculio, and requires the same treatment as plums. Commands a high price in the eastern markets, as it is considered somewhat of a novelty.

Boston. Large; deep yellow, with a bright blush and mottlings of red; sweet and peculiar pleasant flavor; freestone. The tree is hardy and productive. One of the most valuable varieties known. Vig. Aug.

Red Roman. Large; greenish yellow, with a dark, dull red cheek; flesh yellowish, fine and rich. Productive. Vig. Sept.

APRICOTS

The Apricot is one of the most beautiful and delicious of fruits of the plum species. It ripens very early, which makes it of great value. It is liable to the attacks of the curculio and requires the same treatment as plums.

Acme. A new variety from northern China. The fruit is of the very largest size, yellow, with red cheek, and is a sweet and delicious freestone. Tree an immense grower, very hardy and productive.

Early Golden (Dubois). Small; pale orange; juicy and sweet. Hardy as the Russian and productive. Vig. First of July.

Harris. Recommended for its good bearing qualities and extreme hardiness. Prized

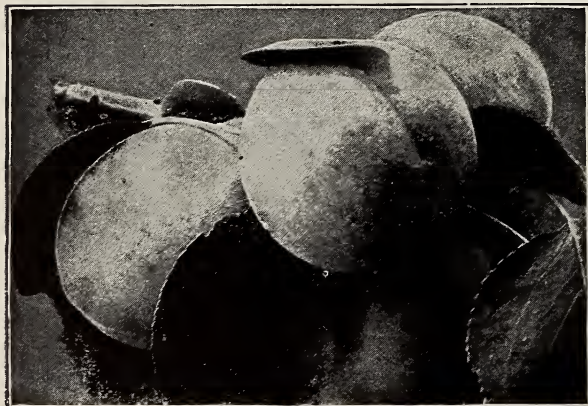
very highly as a market variety. It is equal in size and quality to the best cultivated sorts, and should take the place of the Russian Apricot.

Moorpark. One of the largest. Orange, with a red cheek; firm, juicy, with a rich flavor. Very productive. Vig. July.

Peach. Very large; orange, with a dark cheek; juicy and high flavored. One of the best. Vig. July.

Royal. Large; yellow, with an orange cheek; juicy, rich and delicious. Should be in every collection. Vig. July.

Russian. A new variety, recently introduced. Its extreme hardiness and fine quality of fruit make it very valuable.



HARRIS APRICOTS

Improved Russian Apricots

Alexander. Large, oblong; yellow, flecked with red; flavor sweet and delicious. Hardy and an immense bearer. July 1.

Alexis. Large to very large yellow, with red cheek; slightly acid, but rich and delicious. Tree hardy and an abundant bearer. July. 15.



REA'S MAMMOTH QUINCES

QUINCES

The Quince is of late attracting a good deal of attention, both for home and market purposes, because of its many uses, such as canning, preserving and for flavoring other fruits, and because of its commercial value on the markets. It flourishes in any good garden soil, but well repays special and careful cultivation. The following is one of the best modes:

Late in the autumn give the soil a top-dressing with potash, or wood-ashes, which is the best, though slaked lime or cow-manure will do. Sprinkle some salt over the ground and then cover with a heavy mulching of straw or litter, say 6 or 8 inches thick, to prevent the roots from severe freezing, and in the spring remove the mulching, placing it in piles near the trees, and cultivate the soil thoroughly until about the last of June or first of July, at which time replace the mulching, which should again be removed in October and replaced about one month later, after the ground has been top-dressed as above directed, and continued in this way from year to year.

Apple, or Orange. Large, roundish; bright golden yellow; cooks tender and is of excellent flavor. The tree is very productive. Valuable for preserves or flavoring. Sept.

Champion. Originated in Connecticut. The fruit averages larger than the Orange, more oval in shape, quality equally fine and a longer keeper. The tree is very prolific and a constant bearer. Vig. Oct. and Nov.

Missouri Mammoth. The largest Quince in cultivation. It attracted great attention at Kansas City, Mo., where it fruited ex-

tensively, and on account of its being large and of perfect shape, very aromatic and rich. The tree is vigorous, productive, an early bearer and free from blight.

Meech's Prolific. The most prolific and vigorous Quince yet introduced, young trees bearing profusely large, beautiful golden fruit, as handsome as the finest oranges; the flavor is unsurpassed.

Rea's Mammoth. A seedling of the Orange, but one-third larger, of same form and color, fair, handsome, and equally good and productive. Free. Oct.

MULBERRIES

Downing's Everbearing. Blue-black; flesh juicy, rich sugary, with a sprightly vinous flavor. The beauty of this variety as a lawn or street tree is enough to commend it, as well as an abundant yield of large berries for about three months which are much relished.

New American. Equal to Downing in every respect. Fruit of the largest size; black;

delicious in flavor. Makes a fine lawn tree of rapid growth; hardy.

Russian. This also makes a good shade and ornamental tree, growing full and symmetrical, holding its leaves until late in the fall. Color of fruit varies, but is generally black. Bears fruit at two or three years of age. Said to be very desirable in the culture of silk-worms.

DWARF SERVICE, or JUNE BERRY

Resembles the common Service, or Juneberry in leaf and fruit, but the fruit is larger and almost black, commencing to bear profusely the second year after transplanting. Grows 4 to 6 feet high and branches out from the ground like currants. Valuable as a dessert fruit and should be on every farm or garden.

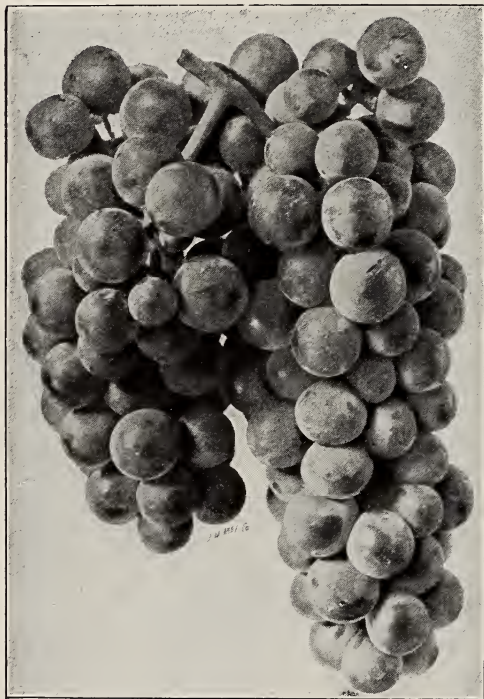


CONCORD GRAPES GROWING IN VINEYARD

GRAPES

The Grape is the most satisfactory fruit to raise and is at home in the West. Its history is almost as old as that of man. Vineyards were extensively planted before orchards or collections of other fruit trees were at all common, and today it is one of the most highly appreciated fruits. No fruit will give better returns for close attention and kind care, and good returns can be had from soils which are unfit for other crops. They can be trained up the sides of any building or over a garden fence, but the best and cheapest way to grow them either in small or large quantities is on the wire trellis. Careful pruning is necessary for good crops, and should be done when the vine is entirely dormant.

Plant in rows 8 feet apart and 6 to 8 feet in the row, in deep cultivated ground, and a little deeper than when in the nursery. Some of the tender varieties are benefited by laying the vines flat on the ground during winter, with a light covering of earth or litter.



CAMPBELL'S EARLY

Black Grapes

Campbell's Early. The vine is strong, hardy and of vigorous growth, with thick, heavy, healthy foliage. Berries borne in large clusters, nearly round, large, of a glossy black color, with a beautiful blue bloom; pulp sweet and juicy; free from foxiness; seeds small, few in number, and parts readily from the pulp. Ripens with Moore's Early, but, unlike that variety, keeps sound and perfect for weeks after ripe. Valuable for shipping. Originated by the late Geo. W. Campbell by crossing Moore's Early with pollen of a seedling from a cross of Muscat-Hamburg with Belvidere.

We make a specialty of moving large specimen trees (see second cover page)

BLACK GRAPES, continued

Concord. The most popular Grape in America. Bunch and berries large, round; skin thick and covered with bloom; flesh juicy and sweet. The vine is very hardy vigorous and productive.

Ives. Hardy and productive. Valuable for market on account of its earliness.

Moore's Early. A Concord seedling. The entire crop ripens before its parent. Bunch medium; berries large, with blue bloom; flesh pulpy, of medium quality. The vine is hardy and moderately productive. Very profitable for market on account of its earliness and handsome appearance.

Worden. A splendid Grape of the Concord type, but earlier; larger in bunch and berry, and of decidedly better quality. Vine as hardy, and in every way as healthy.

Red Grapes

Agawam (Rogers' No. 15). Large, round, early and of vigorous growth rich, high, peculiar aromatic flavor. Very much subject to disease. Where all its aroma is developed, it is too high-flavored to be very desirable.

Brighton. A cross between Concord and Diana Hamburg. Bunch large, well formed; berries of medium size; purple; flesh tender, sweet, of best quality. Ripens early. Showy for table or market.

Catawba. The famous wine Grape. Bunches large and loose; the berries are large, of a coppery color, becoming purple when fully ripe. Ripens late. A good variety, but often rots.

Delaware. Conceded to be one of the finest Grapes. The bunch is small, compact and shouldered; berries rather small; skin thin; flesh very juicy, without any hard pulp, with a very sweet, spicy and delicious flavor. The vine is moderately vigorous, very hardy and productive.

Salem (Rogers' No. 53). Bunches large and compact; berries large, round; flesh tender, juicy, sprightly, sweet and good. Ripens soon after the Delaware.

Vergennes. A seedling of Vermont. The vine is hardy; vigorous and productive; quality good.

Wyoming Red. A very early, medium-sized red Grape. Bunch small, compact, skin bright red; sweet. A slight foxy odor is apparent when first gathered.

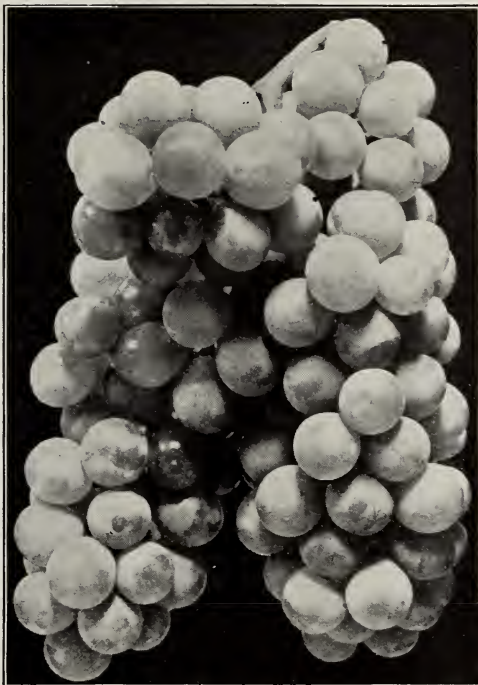
Woodruff Red. One of the hardiest Grapes; a rank grower and very healthy. Bunch and berry large, shouldered and attractive; sweet and of fair quality. Desirable for market. Ripens soon after Concord.

White Grapes

Elvira. Bunch and berry of medium size and very compact. A very strong, healthy and robust grower; very productive. Ripens about with Catawba.

WHITE GRAPES, continued

Green Mountain (Winchell). Found growing on the side of the Green mountain in Vermont, at an altitude of 1,400 feet. The earliest white Grape and has been thoroughly tested over a wide area, and combines hardiness, fruitfulness, vigor, and excellent quality. Bunch medium to large, shouldered; berries medium, greenish white; skin very thin; exceedingly tender and sweet and contains but one or two seeds, which separate from the pulp with the slightest pressure. A most valuable variety, either for the amateur or professional.



MOORE'S DIAMOND

Martha. Resembles the Concord, of which it is a seedling, in growth and hardiness. Bunch of good size; berry large, pale green or light; juicy, sweet and sprightly. Ripens with the Concord.

Moore's Diamond. Very hardy, healthy and vigorous. A white dessert Grape, with a sweet, sugary taste. Ripens from two to four weeks before the Concord.

Niagara. Occupies the same position among the white varieties as Concord among the black. Bunch very large and handsome, sometimes shouldered, compact; berries large, round, with a tough skin and of good quality, have not much pulp when fully ripe. The leading, profitable market Grape. Ripens about with Concord. Succeeds well both North and South, and is very largely planted by vineyardists.

RASPBERRIES

The Raspberry thrives on strong soil, well manured, thoroughly cultivated and mulched freely. For field rows, plant 6 feet apart and 3 feet in the row. In garden culture, tie up to single wire. Cut out the old and weak shoots each year. Raspberries may be made very profitable with good cultivation.

Red Raspberries

Cuthbert (Queen of the Market) Large, conical; rich crimson. The fruit is so firm that it can be shipped hundreds of miles in good condition. Flavor sweet, rich and luscious. Very strong and hardy, standing the northern winters and southern summers equal to any variety.

Loudon. Canes strong and hardy; berries large, of good color and fine quality. Very desirable for home or market use on account of its productiveness and fine quality.

Miller. Extremely hardy, very productive, and one of the earliest to ripen. An excellent shipper, of good quality and attractive color. The bush is stout, healthy and vigorous, bearing very heavy crops.

Turner. A beautiful red berry, of fine size and excellent quality. One of the hardiest and most productive varieties known.



CUMBERLAND RASPBERRIES

Blackcaps

Cumberland. The fruit is enormous, surpassing any other blackcap known. It has been thoroughly tested everywhere and gives general satisfaction. The fruit is firm and will stand long shipments, making it a very profitable berry. The bush is very healthy and vigorous, and the hardiest and most productive in cultivation. The quality is similar and equal to the Gregg.

Gregg. The best late Blackcap and very popular for market. Canes of strong, vigorous growth, and under good cultivation very productive. Berries large, covered with heavy bloom, firm, meaty and of fine flavor. It is not entirely hardy, suffering during unusually severe winters. Requires good strong soil to produce best results. The standard blackcap by which others are judged.

Hopkins. The berries are large and of fine quality, selling well in the markets. The canes are very vigorous, healthy and

productive. Extensively grown for the markets in western and southern Missouri and eastern Kansas.

Haymaker. A purple cap, and not so dark as Columbian or Shaffer, and much larger and firmer than either, never crumbles and stands up well for shipping. Sample crates have been shipped long distances with entire satisfaction. Very valuable for home use or market. One-fourth of an acre of one-year-old-plants produced fifty bushels of fruit, which sold at from \$3 to \$3.50 per bushel.

Kansas. Originated at Lawrence, Kan. A blackcap which succeeds wherever tried and will soon supersede some of the older varieties. It is healthy, vigorous and not subject to leaf-blight, and produces strong, healthy tips; fruit large, very prolific. As fine a berry as Gregg and equally good for shipping.

BLACKBERRIES

In field culture plant in rows eight feet apart and 3 feet distant in the rows; in garden culture plant rows 5 feet apart and 3 feet distant in the rows. The pruning should be governed by the growth of cane and should be severe. Pinch back the canes in summer when 3 feet high, causing them to throw out laterals.

Early Harvest. A variety of great promise being very early and always reliable. A compact, dwarf grower.

Erie. Said to be the only large, productive, absolutely hardy Blackberry grown. Fruit very large, of excellent quality, and ripens before Wilson Jr.

Eldorado. One of the best Blackberries for the North. Berries large, jet-black, borne

in large clusters and ripen well together; very sweet, melting and pleasant; have no hard core, and keep from eight to ten days after picking with quality unimpaired. The vines are very vigorous and hardy. Enormous yielder.

Lawton. Very large and black; of excellent quality. An abundant bearer. The well-known market variety.

BLACKBERRIES, continued

Rathbun. Juicy and high-flavored; soft throughout, no hard core, sweet and delicious. Carries well to market. Propagates from the tips.

Snyder. Medium size; no hard or sour core; only half as many thorns as Lawton or Kittatinny, and they are short. Extremely hardy and very productive. It leads where hardness is a consideration.

Taylor. Fruit large, and of best quality, melting and without core. Very productive and as hardy as the Snyder. One of the largest Blackberries grown.

DEWBERRIES

Lucretia. One of the low-growing, trailing Blackberries. Fruit large, luscious and handsome. Perfectly hardy, strong grower and exceedingly productive. The vines give the best results when allowed to remain on the ground during winter and started up early in the spring. We highly recommend this variety for market.



RATHBUN BLACKBERRIES

GOOSEBERRIES

This fruit is useful for cooking when green or ripe, and it may be canned with such facility that it is beginning to be cultivated very extensively for both home use and market.

Manure heavily and prune closely to produce large, abundant crops. The English varieties do not require much pruning. Close pruning and heavy mulching prevents mildew. Plant 3 to 4 feet apart each way.



DOWNING GOOSEBERRIES

Downing. Considered one of the most valuable varieties. Larger than Houghton, roundish; light green, with distinct veins; skin smooth; flesh rather soft, juicy and good. Vigorous and productive. Planted more extensively than any other.

Houghton. A medium-sized American variety, which bears abundant and regular crops, and never mildews. Fruit smooth, red, tender and very good.

Industry. Said to be the best English Gooseberry yet introduced. Berries large, $1\frac{1}{2}$ inches in diameter; of most excellent flavor, pleasant and rich; dark red when fully ripe. Vigorous upright grower. Much less subject to mildew than other English sorts.

Josselyn (Red Jacket). An American seedling that rivals the foreign varieties in size. Berries large, smooth, ruby-red and of fine flavor. A strong, thrifty grower, entirely free from mildew; very hardy and exceedingly productive. Has been well tested over a wide territory and has proved very satisfactory.

Pearl. American seedling. Berries one-half larger than Downing; rich and sweet. It has a vigorous, healthy bush, free from mildew; enormously productive. Promises to be the most valuable American variety of recent introduction.

Smith's (Smith's Improved). Large, oval, light green, with bloom; flesh moderately firm, sweet and good. The bush is a vigorous grower.

CURRENTS



WILDER CURRENTS

To get best results plant in a cool, sheltered, moist location about 3 feet apart in rows 4 feet apart. As they are perfectly hardy, they can be planted in the fall and are not injured by the cold winter weather. To destroy the curculio, dust with white hellebore when the dew is on the bush.

Black Champion. Bunches very large; flavor very delicious. Fruit hangs on the bushes a long time.

Cherry. The largest of all the red Currants. Berries very large; bunches short. The plant is very vigorous and productive when given good soil and cultivation.

Fay's Prolific. Deep red; first-class quality and not quite so acid as the Cherry; the stems are longer and the berries hold their size to the end of the stem better. Most prolific and best red Currant.

North Star. Bunches average 4 inches in length; the berries from a single bunch, thirty in number, placed side by side, touching, covered a line 12 inches long. Fruit sweet, rich and firm. Good for market, desirable for dessert in natural state and one of the best for jelly.

Pomona. Beautiful, clear, bright, almost transparent red; has but few and small seeds, and is sweeter than any of the common sorts. Is easily picked, hangs long after being ripe, and is one of the best for shipping. It also retains its foliage long after other varieties have lost most of theirs, thus protecting the fruit from scalding by the hot sun.

Red Dutch. An old standard sort. A great bearer and very profitable for the market.

White Grape. The best table variety. Large, yellowish white; sweet or very mild acid; of excellent quality. Very distinct from the White Dutch, having a low, spreading habit and dark green foliage. Very productive. The most valuable white sort.

Wilder. A remarkable variety both for table and market. Bunch and berry very large; bright, attractive, red color, even when dead ripe; hangs on bushes in good condition a long time. One of the strongest growers and most productive.

STRAWBERRIES

The Strawberry is undoubtedly the queen of fruits. It is the first to ripen and the quickest to come into bearing. Those entering into field culture of Strawberries for commercial purposes, without practical experience will hardly depend on the brief directions given here. Full instructions as to cultivation will be freely given upon application.

The Soil and Its Preparation. The ground should be worked 18 or 20 inches deep and be properly enriched as for any garden crop; drainage is necessary in very wet soil.

Cultivation. For family use, plant 15 or 18 inches apart each way, and after a few strong plants have set from runners, pinch off all runners as fast as they appear; keep the ground free from weeds, and frequently stirred with a hoe or fork. Plants treated in this manner will produce more crowns and yield therefore double the amount of well-developed fruit than when runners are left to grow.

Covering in Winter. Where the winters are severe, it is well to give the ground a light covering with coarse straw or litter. This covering should not be placed on until the ground is frozen. Fatal errors may be made by putting on too much and too early. If coarse straw is used, it may be left on until the plants have done fruiting, taking care to open it up around the plants early in the spring, so as to give them plenty of sunlight and air.

The blossoms of those marked with a letter (P) are destitute of stamens and are termed pistillate, and unless a row of a perfect-flowering variety is planted at intervals not exceeding every third or fourth row, they will produce imperfect fruit and but little of it; but, when properly fertilized, as a rule, they are more prolific than those with perfect flowers.

STRAWBERRIES, continued

Aroma. S. Very large, roundish, conical, rarely mis-shapen; glossy red, of excellent quality, and very productive. The plant shows no weakness of any kind.

Beder Wood. S. Large, roundish, conical, bright scarlet; moderately firm, fair quality. The plant is vigorous and very productive. This is a very desirable early berry for either home use or near market, ripening after Michael's Early.

Bubach No. 5. P. Even under neglect of cultivation this is a wonderful berry in vigor of plant and yield of fruit. Large and handsome, and, in many instances, enormous. Exceedingly productive and esteemed for nearby markets. Midseason.

Clyde. P. A strong and healthy plant, forming berries and runners freely. This variety has made much progress and given entire satisfaction.

Captain Jack. S. Berries large, handsome and solid, of excellent quality. Very vigorous grower, healthy and productive.

Crescent Seedling. P. Medium size; bright light scarlet; not very firm; continues a long time in fruit. Vigorous and hardy. Produces good crops under greater neglect than any other variety.

Dunlap. S. Large and handsome; rich dark red, with glossy finish, shading to deep scarlet on under side. Uniform in size and shape.

Enormous. P. Very large; deep scarlet, unsurpassed in quality. The plant is very strong and vigorous, with leaves of dark glossy green. Valuable on account of its beautiful appearance.

Glen Mary. S. Bright, glossy crimson. Very large, a quart measure holding but twelve of them upon a recent trial. Brings the highest prices in market.

Gandy. S. Large and firm; berries bright crimson, very uniform in size and shape. Plant vigorous and healthy. A reliable and valuable late Strawberry.

Haverland. P. Profitable on account of its productiveness and earliness, but hardly firm enough for distant shipment. Fruit large, handsome and good, but not of the best quality; rather long and of bright glossy crimson. Early.

Marshall. P. Very large, roundish; dark, rich crimson; very good and firm. The plant is vigorous and productive. Medium to late.

Michael's Early. S. The earliest reliable Strawberry,—two weeks earlier than Crescent and fully as productive. Above medium to large, conical, and very uniform; beautiful scarlet; very fine quality. Possesses the flavor of the wild Strawberry.

Warfield No. 2. P. One of the most popular varieties today. Pleasant, subacid, good. The plant is a vigorous grower, with bright, healthy foliage. Early.

Windsor Chief. P. Fruit of large size to the end of the season. A vigorous grower, with healthy foliage; immensely productive.

Wm. Belt. S. Attracts more attention in the markets than any other variety. Very highly colored, ripening evenly to the tip; extra large, pointed; of excellent quality and fine flavor. The plant is an exceedingly strong grower and heavy bearer.



CLYDE STRAWBERRY

ASPARAGUS

This delicious vegetable should be found in every garden. Nothing can be more easily grown and no other plant will give so much good, healthful food for so little outlay.

Dig the soil deeply, and mix together with well-rotted manure or compost. Plant in rows 2 feet apart. The plants should not exceed a foot apart in the rows and planted about 4 inches deep. On approach of winter cover with manure and fork the beds over lightly in the spring.

Barr's Mammoth. A great favorite. A fine large sort, the stalks of which measure an inch in diameter, and retain their thickness nearly to the top.

Conover's Colossal. A mammoth variety of vigorous growth, sending up fifteen to

twenty sprouts from 1 to 2 inches in diameter each year. The color is deep green and crown very close.

Palmetto. Earlier, a better yielder, more even and regular in growth than Conover's Colossal and equal in quality.

RHUBARB

Rhubarb ranks among the best early vegetables. It affords the earliest material for pies and tarts, continues long in use and is valuable for canning. Make the soil very rich.

Linnaeus. Large, tender and fine. Early. The best of all.

Victoria. The most valuable for market on account of its gigantic growth.



Ornamental Department

Suggestions to Planters. The extremes in temperature in this country are so great and the changes often so sudden that it is safe only to plant the most hardy ornamental trees and shrubs. Those varieties that will grow in the nursery when young without protection in winter may be regarded as safe to plant in parks and extensive grounds and in lawns and small places. Yet a few of the most beautiful sorts are not perfectly hardy and will be greatly benefited by some protection during severe winters. A judicious selection from the many varieties given in this catalogue will enable the planter to accomplish his desire in securing that which will give him satisfaction, both in hardiness and in effect.

For Parks and Extensive Grounds. In making selections of trees for this purpose there can be no difficulty, as there will be places for some of all the popular strong-growing sorts as well as many places for the smaller and more ornamental varieties, which are frequently planted in groups, and when by a proper selection so that there may be a succession of flowering and a variety of coloring of the foliage in the autumn, they make a picturesque appearance. But it cannot be too strongly urged upon planters the importance and value of flowering shrubs for effective masses and groups. All the hardy varieties, such as Altheas, Forsythias, Weigelas, Calycanthus, Deutzias, Snowball, Hydrangeas, Lilacs, Syringas, Japan Quince, Fringe (purple and white), Thorns, Almonds, Anemones, Peonies, Phlox and many others, when arranged either in groups or properly distributed produce a magnificent effect, and what grand masses of bloom can be had throughout the season by proper use of the various families! The purple and variegated-leaved trees and shrubs may also be planted in such a manner as to afford a rich and striking contrast.

For Lawns and Small Places. A little more care may be taken in making selections for this purpose, although the selections will depend very much on the size of the ground to be occupied. Where only a few trees and shrubs can be planted, the medium or small-growing sorts, and those that display the finest appearance both in foliage and flowers, should be used, while on larger places a more extensive assortment can be planted.

Evergreens. It is unnecessary to argue in favor of the planting of this noble species of ornamental trees. Their stately appearance has too often caught the eye of the admirer of beautiful landscapes, parks, lawns and home places, and left its lasting impression on the mind to be forgotten or overlooked in arranging the planting of even small grounds. Nothing is more beautiful than a well-arranged group of select evergreens, and when properly distributed, singly over the grounds, their appearance adds greatly to the scenery.

When and How to Plant, Prune, etc. The same directions as are given in the front pages of this Catalogue will apply to ornamental trees and shrubs. Little pruning is necessary on the Pines, Spruces, etc. It is necessary to shorten and thicken the growth and preserve the shape and this should be done just before the buds begin to swell in the spring. Arborvitae, Cypress, Junipers, Cedars, etc., can be shortened in or sheared any time during the growing season. Too much care cannot be taken to keep the roots of evergreens from being exposed to the atmosphere while out of the ground, and a protection the first year from the sun and winds by a lattice work of thin lath will aid in securing the life and growth of many evergreens.

We can furnish large specimens of Shade and Ornamental Trees

DECIDUOUS TREES

AILANTHUS glandulosa (Tree of Heaven).

A rapid-growing tree from Japan, with long, elegant, sumac-like foliage, which gives it a tropical effect. Exempt from all diseases and insects.

ALDER, European (*Alnus glutinosa*). A tree of rapid growth. Is valuable for planting in cold, damp ground, but succeeds well everywhere.

Imperial Cut-leaved (*A. glutinosa imperialis lacinatus*). The leaves are deeply and beautifully cut, giving the tree a striking appearance.

ASH, American White (*Fraxinus Americana*). A beautiful and desirable shade tree, also valuable for timber. It grows very rapidly.

BEECH, Purple-leaved (*Fagus purpurea*). A large tree with purple leaves, changing to greenish purple in autumn. Makes a fine specimen for the lawn or garden.

American (*F. ferruginea*). Our well-known native variety. Is very picturesque and, when planted in a group of other trees, makes a fine contrast.

BIRCH, European White (*Betula alba*). A beautiful tree, with white bark and graceful foliage. A graceful and hardy species of drooping habit. Desirable as single specimen or planted among other trees for contrast.

Purple-leaved (*B. alba purpurea*). Has beautiful purple foliage, as dark as the Purple Beech. Is very desirable for the lawn.

BUTERNUT, or WHITE WALNUT (*Juglans cinerea*). A fine native tree, producing a large longish nut, which is sought after for its sweet and edible kernel. Fine for lawn or orchard planting.

CATALPA Bungei. A dwarf species when on its own root, and makes a curious, compact tree or shrub with a globular head, even more symmetrical than the Umbrella China tree of the South. Absolutely healthy and hardy; its branches are numerous and short, and the broad leaves lay as shingles on a roof, making a dense shade. Is very effective for lawn and terrace decoration.

speciosa. Especially ornamental in June when laden with its profusion of white flowers panicles. More upright and symmetrical in growth than the common Catalpa. Possesses wonderful durability which makes it a valuable timber for fence posts, railroad ties, etc. A strong, quick grower.

CHESTNUT, American (*Castanea Americana*). A large and beautiful well-known forest and nut-bearing tree. Few trees combine such vigor and grand stature, with so many

other good qualities. Planted extensively for profit and ornamental purposes.

Chestnut, Japan, or Giant (*C. Japonica*).

A small tree from Japan. Very ornamental, hardy, and productive of enormous-sized nuts as sweet as the American species; bears very young.

CHERRY, Double White-flowering (*Cerasus avium alba flore plena*). No garden is complete without the bright, cheerful aspect of the Flowering Cherry. The flowers are so numerous as to hide the branches and show nothing but a mass of bloom, each flower resembling a miniature white rose. May.

CRAB APPLE, Bechtel's Double-flowering (*Pyrus coronaria fl. pl.*). The finest of the many beautiful varieties of the Flowering Crab Apples. Tree of medium size, covered in early spring with large, double, fragrant flowers of a delicate pink color, having at a distance the appearance of roses. It is without doubt one of the handsomest trees grown.

CYPRESS, Deciduous, or Southern (*Taxopodium distichum*). A very tall, narrow-headed tree of conical outline that is popular for ornamental purposes. The small yew-like foliage is very cheerful.



BECHTEL'S DOUBLE-FLOWERING CRAB APPLE

DOGWOOD, White-flowering (*Cornus florida*). A beautiful American species of fine form, growing from 16 to 25 feet high. The large, white flowers are produced in spring before the leaves appear. The leaves are green, turning to a deep red in autumn. Indispensable for lawn or landscape.

ELM, American White (*Ulmus Americana*). The most distinct tree adorning American landscapes. Fine for parks.

HORSE-CHESTNUT, White-flowering (*Æsculus Hippocastanum*). Is a very desirable tree for producing heavy shade, making it valuable for street planting. Produces an abundance of showy white flowers on erect panicles in early spring. Bears large inedible nuts.

Buckeye (*Æsculus glabra*). Similar to the above, but with greenish yellow flowers and narrower foliage.

JUDAS TREE, or RED BUD, American (*Cercis Canadensis*). A small, Western tree, with a wealth of floral beauty in the spring before the leaves appear. Nothing can be more beautiful in April or May than a large, round-headed Red Bud, covered with its pretty flowers, before the bursting of a single leaf.

KÖLREUTERIA paniculata (Varnish Tree). A small tree, with a handsome, round head, native of China. Fine-lobed leaves, which change to a fine yellow in autumn, and large panicles of showy golden flowers the last of July. A handsome tree and very desirable on account of its flowers coming when few trees are in bloom.



CATALPA BUNGEI

LARCH, European (*Larix Europæa*). A pyramidal, coniferous tree, with slender and drooping branches; the leaves are of a light green hue, soft and graceful, and needle-shaped.

LABURNUM vulgare (Golden Chain). Very few of the flowering trees can surpass the beauty of the Golden Chain, with its smooth, shining foliage and bright yellow, pea-shaped blossoms produced in beautiful hanging clusters.

LIQUIDAMBAR styraciflua (Sweet Gum). One of the best of our native trees. Of medium size, round-headed or tapering, with leaves somewhat resembling the maple, but are star-shaped and of a beautiful green in summer, changing to deep purplish crimson in autumn; bark corky. Unsurpassed in beauty by any other tree.

LOCUST, Black, or Yellow (*Robinia pseudacacia*). A large native tree of rapid growth, and valuable for shade or ornamental purposes. The white flowers are very fragrant and borne in drooping racemes in May or June.

Honey, or Three-thorned Acacia (*Gleditsia triacanthus*). A rapid-growing tree, with delicate foliage of a fresh, lively green color, and strong thorns. Forms an almost impenetrable hedge if closely planted and severely clipped.

Rose, or Moss. A native species of spreading, irregular growth, with long, elegant clusters of rose-colored flowers in June and at intervals all season.

LINDEN, American, or Basswood (*Tilia Americana*). A large, native tree, forming a broad, round-topped crown. Large leaves and fragrant flowers. Desirable for street, lawn or park planting.

European (*T. Europæa*). Generally grows regular and conical, and, when planted alone, develops finely, with its branches sweeping the ground. One of the most valuable trees for the lawn, developing into handsome specimens.

MAGNOLIA acuminata (Cucumber Tree). One of the largest Magnolias, forming a fine pyramidal-shaped tree. The flowers are yellowish white, medium-sized, and appear in June. The fruit, when green, resembles a small cucumber, but when ripe is a deep scarlet. A valuable hardy shade tree.

Conspicua (Chinese White Magnolia). A conspicuous and beautiful species on account of its being literally covered about the middle of April with large white flowers before the leaves appear. A desirable lawn tree.

Glauca (Sweet Magnolia). A slender tree or large shrub. The flowers are creamy white and very fragrant, produced in May and June, which make it very valuable and highly esteemed.



MAGNOLIA SOULANGEANA

Magnolia Lennei (Lenne's Magnolia).

A hybrid variety of great beauty. The flowers are deep rose; foliage tropical and heavy. The tree is vigorous and profuse blooming, frequently opening grand flowers at intervals through the summer.

Halleana (Hall's Magnolia). Very fragrant, semi-double flowers in April. The earliest Magnolia to bloom.

Purpurea (Purple Magnolia). A large shrub-like species, producing light purple flowers very early in spring.

Soulangeana (Soulange's Magnolia). Among the hardiest and finest of the foreign Magnolias. Its blossoms are from 3 to 5 inches across, cup-shaped, white and rosy violet.

Speciosa. The flowers of this species are a trifle smaller and lighter-colored than Soulangeana; they open about a week later and remain perfect on the tree longer than those of any other Chinese Magnolia.

MAPLE, Ash-leaved, or Box Elder (*Acer Negundo*). A fine rapid-growing variety, with spreading head and handsome light green permeated foliage; very hardy. Fine for avenue planting.

Norway (*A. platanoides*). One of the best ornamental trees for street, lawn, park or cemetery planting in cultivation. A foreign variety, with large, broad leaves of a rich, deep green color.

Maple, Schwedler's (*A. Schwedleri*).

The young shoots and leaves of this beautiful variety are a bright purplish and crimson color, changing to purplish green when the leaves get older.

Silver-leaved (*A. dasycarpum*). This

Maple may be seen along the street of almost every town or village. Of very rapid growth, hardy and easily transplanted.

Sugar, or Rock (*A. saccharum*).

Much used for shade in lawn and park plantings. The tree is very stately and has fine foliage which has a brilliant autumn coloring.

Wier's Cut-leaved (*A. dasycarpum*

Wierii laciniatum). A Silver Maple with beautiful dissected foliage. Of rapid growth; the shoots are slender and drooping, giving it a very graceful appearance. A great favorite and of deserved popularity.

MOUNTAIN ASH, European (*Sor-*

bis aucuparia). A beautiful medium-sized tree, with stems erect, smooth bark, and a symmetrical, round head. Bright scarlet berries cover the tree during fall and winter. Very much admired for its showy appearance.

Oak-leaved (*S. quercifolia*).

A handsome tree of erect habit and rich green foliage which is deeply lobed. Very hardy and desirable for planting on lawns or in yards.



NORWAY MAPLE



FLOWERS OF TULIP TREE

OLIVE, Russian. An ornamental tree of special value, growing to a height of 30 feet or more. The bark and leaves are light green when young, the bark getting darker and the leaves more silvery white as the tree grows older. The blooms are in small racemes 3 inches long, with a sweet and spicy fragrance, and are borne profusely in June. Makes a valuable addition to any lawn.

OAK, Pin (*Quercus palustris*). The most popular of all the Oaks. The foliage is deep green and finely divided; assumes a drooping form when it acquires age. Unsurpassed for lawns.

Red (*Q. rubra*). An American species of large size and rapid growth. Deeply cut green leaves. Makes a splendid lawn or shade tree.

PAULOWNIA imperialis (Empress Tree). An odd-looking tree with leaves that often measure 18 inches across and bears long panicles of purple flowers in June. If cut back to the ground each year, the roots send up rapid-growing branchless trunks that produce a unique and tropical effect.

PEACH, Double Red-, White- and Camellia-flowered. No garden is complete without one or more trees of the beautiful double-flowered forms of the Peach. They thrive in almost any soil and may be grown wherever the typical form is hardy. A very ornamental tree.

Blood-leaved. A very curious tree. The foliage is as dark as the purple Beech.

PERSIMMON, American (*Diospyros Virginica*). A small native tree, with pleasing shining foliage. Is valuable also for its well-known fruit.

PLUM, Purple-leaved (*Prunus Pissardi*). A handsome small tree, with purple foliage and black bark, and retains its color throughout the summer. The new growth is especially bright. It also produces a delicious red fruit which, with its foliage, makes it a beautiful ornamental tree. One of the best of purple-leaved trees, the hot sun not affecting the leaves.

POPLAR, Balsam (*Populus Balsamifera*). A tall tree, with stout, erect branches, forming a narrow, pyramidal head. Of very rapid growth, and has large, glossy foliage.

Carolina (*P. Caroliniensis*). This is the finest Poplar and more extensively planted in cities for quick effect than any other variety. Of good form and succeeds everywhere. Makes a splendid windbreak or screen, and is used in larger numbers than any other shade tree. Resists smoke and gas.

Lombardy (*P. nigra fastigiata*). A well-known, tall, erect-growing tree of rapid growth and spire-like outline. Very desirable in landscape planting to destroy the sameness and give variety to the other trees. An avenue of this variety is a beautiful sight.

Silver-leaved (*P. alba*). A rapid-growing tree, with leaves that are silvery white on their under surface. At a distance, when the wind turns the under surface of the leaves up it gives it the appearance of a tree covered with white blossoms.

SALISBURIA adiantifolia (Maidenhair Tree, or Ginkgo). A graceful and picturesque tree, with yellowish green leaves, curiously lobed and marked with delicate hair-like lines. A valuable ornamental tree, and useful for street and avenue planting, and is generally free from insects and diseases.

SYCAMORE, American Plane, or Buttonwood (*Platanus occidentalis*). One of our tallest well-known trees. Valuable for planting in the city streets as it is remarkably free from diseases and withstands the smoky atmosphere.

THORN, Double White (*Crataegus alba fl. pl.*). A shrub or small tree, with double white flowers, which are most valuable for cut-flowers and decorations.

Double Scarlet (*C. coccinea fl. pl., Pauli*). The flowers of this variety are deep crimson, with scarlet shade, very double; and large. Superior to any other variety and very handsome.

TULIP TREE (*Liriodendron Tulipifera*). A magnificent native tree of the Magnolia species. A large and stately rapid-growing tree, with rich, glossy foliage. The flowers appear the first week in June and are large, tulip-like, with a greenish yellow color, blotched orange. Hard to transplant unless of small size. Plant only in spring and prune closely.

WILLOW, Rosemary-leaved (*Salix rosmarinifolia*). Leaves long, silvery white, branches stiff, covered with a whitish down. An effective and pleasing tree. Budded 5 to 7 feet from the ground it makes a very handsome tree.

Laurel-leaved (*S. pentandra*). Beautiful large, glossy foliage that shines conspicuously in the sunlight. A strong grower along the water edges or on high ground

Willow, Royal. A handsome tree with rich, silvery foliage. Is very desirable.

YELLOW WOOD (*Virgilia lutea*). The most beautiful of all the leguminous or pea-blossoming trees. It produces panicles of creamy white, fragrant flowers, 15 inches or more long, bark smooth and polished; the leaves are remarkable for their purity of color. Nothing is finer as a single specimen for the lawn.

WEeping DECIDUOUS TREES

Much attention is now given to this class of trees, and we place them separately for the convenience of our customers. The superior grace and beauty of the weeping varieties render them especially adapted to yard, lawn or cemetery. No collection is complete without them. Among ornamentals they have no superior.

BIRCH, Cut-leaved Weeping (*Betula lacinata pendula*). A tall tree, with gracefully pendulous branches and deeply cut foliage. A superb lawn tree and very much admired.

ELM, Camperdown Weeping (*Ulmus scabra pendula*). A very picturesque and

Elm, Camperdown, continued graceful form with drooping branches. They overlap so regularly that a compact, roof-like head is formed. One of the best of the weeping trees.

MOUNTAIN ASH, Weeping (*Sorbus aucuparia pendula*). A beautiful tree, with straggling, weeping branches. A fine lawn tree and good for covering arbors.

MULBERRY, Teas' Weeping (*Morus Tatarica pendula*). A weeping variety of the now well-known Russian Mulberry. A graceful, hardy tree, forming a perfect umbrella-shaped head, with long, slender, willow branches drooping to the ground. The foliage is small, lobed and of a fresh, glossy green color. Very hardy and of rapid growth. Valuable for the cemetery and can be trained into almost any shape.

WILLOW, Common Weeping (*Salix Babylonica*). The well-known common Weeping Willow. A large tree, covered with drooping branches.

Thurlo's Weeping (*S. elegantissima*). Similar to the common form, but more spreading in habit and of greater hardiness; the foliage is about the same, and has grayish green bark.

Kilmarnock Weeping (*S. Caprea pendula*). Exceedingly graceful, forming an umbrella-like canopy, the branches eventually sweeping the ground. A distinct variety having reddish shoots and large, glossy foliage. Extensively planted and should be in every collection of ornamental shrubbery.

Wisconsin Weeping (*S. Babylonica dolorosa*). The leaves are whitened on the lower surface. Perfectly hardy, withstanding the winters of the far North without injury.



WEeping BIRCH

EVERGREEN TREES

ARBORVITÆ, American, or White Cedar (*Thuja occidentalis*). One of the finest medium-sized evergreens for screens or hedges. It is very hardy, there being very few places where it will not thrive. It bears shearing better than any other variety and may be made to grow into almost any desirable form. More extensively planted than any other.

Compact (*T. occidentalis compacta*). Upright, compact and very symmetrical; very hardy, retaining its beautiful green color all winter. One of the finest of the Arborvitæ.

Golden (*T. aurea*). A beautiful variety of the Chinese Arborvitæ. Compact and globular in form. Lively, yellowish green color.

Globe (*T. globosa*). Originated at Philadelphia. Grows naturally into a rounded, almost ball-like form. Very desirable for grouping.

Hovey's Golden (*T. Hoveyi*). A seedling of the American, with fine foliage of a bright yellow-green color; it inherits the hardness of its parent, and is distinct and beautiful.

Pyramidal (*T. pyramidalis*). Similar to the American, having dark green, compact foliage and very erect form. It is perfectly hardy. The most beautiful variety, and well adapted for formal planting and lawn specimens.



COLORADO BLUE SPRUCE

Arborvitæ, Siberian (*T. Sibirica*). One of the best of the genus. A slower grower and more compact than the American, of which it is a variety. The foliage is thicker, more luxuriant and retains its color well into the winter. Hardy.

FIR, Balsam, or American Silver (*Abies balsamea*). A regular symmetrical ornamental tree of conical form, even when young; the leaves are dark green above and silvery beneath. Hardy.

JUNIPER, Virginian (*Juniperus Virginiana*). This is the common well-known form of Red Cedar. It is usually compact and conical; very hardy and grows in unfertile places.

Glacius (Red Cedar). Is very desirable on account of its distinct, compact conical habit, and its silvery foliage.

Irish (*J. Hibernica*). Very erect in its growth, forming a dense, conical outline which resembles a pillar of green. Is very useful in formal plantings.

Savin (*J. Sabina*). A low-spreading tree, with dark green foliage. Very valuable for rockeries, groupings and borders, contrasting with other low-growing trees.

PINE, Austrian, or Black (*Pinus Austriaca*). A tall massive species from the mountains of Syria; the branches are spreading, with long, stiff, dark green leaves. Very hardy.

Scotch (*P. sylvestris*). A native of the British Islands. Its rapid growth makes it suitable for screens and shelter-beds. Bluish foliage and ragged shoots. Thrives even on the poorest soils.

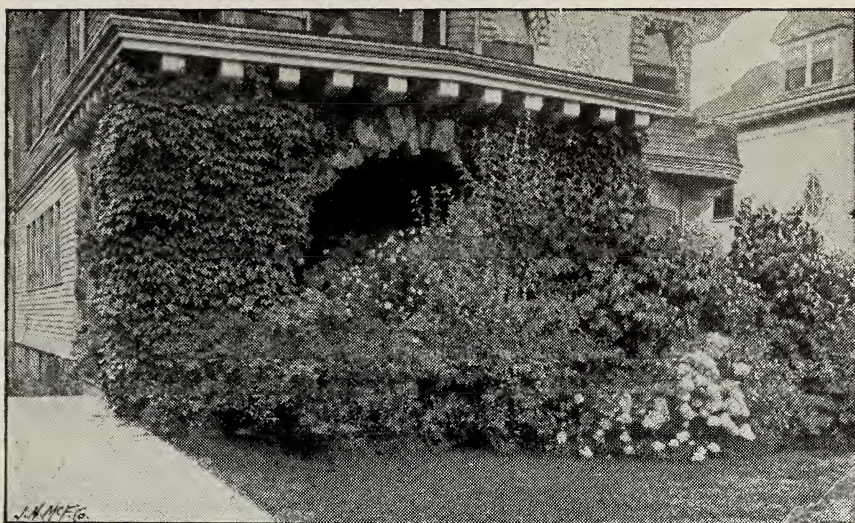
White (*P. Strobus*). A grand old favorite and the most ornamental of all our native Pines. The foliage is light, delicate or silvery green. It withstands hardships and grows in the most barren soils.

Mountain, or Dwarf (*P. Mughus*). Forms a dark dome-shaped bush broader than its height and sometimes almost prostrate. Leaves short, stiff, a little twisted and thickly distributed over the branches. Fine for lawn specimens or evergreen groups.

SPRUCE, Norway (*Picea excelsa*). This familiar Spruce is more generally useful than any other variety. It is a lofty tree of pyramidal habit and very elegant and rich. With age it has fine, graceful, pendulous branches; very popular as an evergreen hedge. Is very picturesque and beautiful.

Colorado Blue (*P. pungens glauca*). This Spruce has been tested through the West and Northwest with perfect success, enduring a temperature of 30 degrees below zero in exposed situations without injury. It is also beautiful in color and outline, the foliage being of a rich blue or sage color. Makes an ornamental tree of great beauty.

Hemlock, or Weeping (*Tsuga Canadensis*). A very graceful and beautiful native tree, with drooping branches and delicate dark foliage, like that of the yew. Distinct from all other evergreen trees. Valuable as a lawn specimen; no other evergreen is better adapted for hedges.



ORNAMENTAL SHRUBS

ALTHÆA (Rose of Sharon; Hibiscus). Familiar shrubs and valuable because of their flowering in the fall when most other shrubs are out of bloom. Hardy and of easy cultivation.

Ardens. Double; violet; very large and distinct.

Boule de Feu. Very double: light rose; large. One of the finest red varieties.

Jeanne d'Arc. Best of the double whites. Hardy and a free bloomer.

Pompon Rouge. Double $3\frac{1}{2}$ to 4 inches across; light rose. Is vigorous and fine.

Duchesse de Brabant. Double; Reddish lilac flowers; large. A strong grower and one of the very best.

Totus albus. Double; white, with pink center.

Variegated-leaved Double Purple. Very showy and distinct. Leaves variegated with light yellow; flowers double, purple. Very fine.

Pulcherrima. Very large, double white, shaded pink; strong grower. One of the best.

ALMOND, Dwarf Double Rose-flowering (*Amygdalus communis rosea fl. pl.*). A beautiful shrub, with small, double rosy blossoms closely set upon the branches before the leaves appear.

Dwarf Double White-flowering (*A. communis alba fl. pl.*). Same as preceding except that the color is white.

ANEMONE Japonica alba 'Japanese Windflower'. A grand, thoroughly hardy, pure white subject for the lawn or garden. It grows about 18 inches high, with flowers 2 inches in diameter, which bloom in the fall. Valuable for cemetery planting.

ARALIA Japonica. A handsome and distinct shrub, with large, tripinnate leaves and spiny stems; flowers white, in large spikes in August.

Pentaphylla. Desirable for mass planting; slender, prickly branches; leaves palmate, five-lobed and pale green.

Spinosa (Hercules' Club). Valuable for producing tropical effects.

BUCKTHORN, Purging (*Rhamnus catharticus*). A valuable hardy, large-growing shrub, with dark rich foliage and white flowers, followed by black berries; well suited for mass and border planting; also desirable for hedges.



DOUBLE ALTHEA



DEUTZIA, PRIDE OF ROCHESTER

BARBERRY, Common (*Berberis vulgaris*).

An erect, sturdy-growing shrub, with clusters of yellow flowers in May or June, followed by dark red berries that last through the winter.

Purple-leaved (*B. purpurea*). Habit similar to the above, but the foliage and fruit are dark purple, which make it very desirable for foliage contrast.

Thunberg's (*B. Thunbergii*). An invaluable little shrub from Japan that fits in with almost every planting. Of dwarf, graceful habit; the foliage is small, changing to beautiful bright red early in the fall.

CALYCANTHUS floridus (Sweet-scented Shrub). An old-fashioned shrub of strong, upright habit. The flowers and wood have a rare and peculiar fragrance; the blooms are borne abundantly and are of a chocolate color.

CARAGANA arborescens. A very hardy, tall shrub, similar to the Laburnum in appearance, bearing pea-shaped, yellow flowers the first week in May.

CARYOPTERIS mastacanthus (Blue Spirea). A pretty shrubby plant, producing clusters of beautiful fragrant flowers in great profusion from September until frost. Valued for its lateness of flowers.

CEANOTHUS Americanus. A low-growing shrub, with panicles of white flowers in June.

CEPHALANTHUS occidentalis (Button Bush). A tall-growing shrub with globular heads of white flowers in July.

CLETHRA alnifolia (Sweet Pepper Bush). White, fragrant flowers in August. Good for shady places.

CURRENT, Crimson-flowering (*Ribes sanguineum*) Small, deep red flowers in long, drooping racemes in early spring. Is very ornamental.

Double Crimson-flowering (*R. sanguineum fl. pl.*) A variety of the above with double flowers in July. A most beautiful flowering shrub.

Gordon's (*R. Gordonianum*). The flowers are crimson and yellow in pendulous branches in May. Hardy and a profuse bloomer.

DEUTZIA gracilis (Slender-branched Deutzia). A dwarf species from Japan. The flowers are pure white. Fine for pot culture as it

flowers freely at a low temperature in the winter.

Crenata fl. pl. Flowers double white, tinged with rose. One of the most desirable shrubs in cultivation.

Candidissima. The pure snow-white, double flowers are of great beauty, and valuable for bouquets and baskets. Exceedingly dainty and beautiful.

Pride of Rochester. Raised from *D. crenata fl. pl.*, producing large, double white flowers the back of the petals slightly tinged rose. The flowers are larger, panicles longer and a more profuse bloomer than the older sorts. Very vigorous. A charming acquisition.

Lemoinei. Without doubt one of the most important new hardy plants offered in many years. Large, pure white flowers, produced in broad-based, cone-shaped heads, which open out very full.

DESMODIUM Japonicum (*Podocarpum*). This is really not a shrub, being herbaceous, but it pushes up from the base so shrub-like that it is sometimes classed as one. The flowers are white, appearing about September 15.

Penduliflorum (*Lеспедеза Sieboldi*). Character same as the above, but blooms a few days earlier, and bears sprays of rose-colored flowers at a season when but few other shrubs are in bloom. Valuable for planting in beds or groups of shrubs.

DOGWOOD (*Cornus*)—

Cornelian Cherry (*C. mascula*). Bright yellow flowers in May, followed by scarlet berries in autumn.



HYDRANGEA PANICULATA GRANDIFLORA (see page 32)

Dogwood, Red-branched (*C. Siberica*).

The blood-red branches make it very conspicuous and ornamental in winter. The flowers are greenish white.

ELÆAGNUS argentea (Silver-leaved Oleaster). A large native shrub, with beautiful silvery foliage and small yellow flowers in July and August.

Longipes. A handsome, shapely, silver-leaved shrub, with reddish branches in winter; perfectly hardy and of easy growth with bright yellow flowers in June. The greatest value of this shrub is in the fruit, which is produced in great abundance along the whole length of the branches; it is oval in shape, about $1\frac{1}{2}$ inches long and of a deep orange-red color.

ELDER, Golden (*Sambucus nigra aurea*). A handsome shrub, with golden yellow foliage and clusters of pure white flowers. Excellent for lawn planting.

Cut-leaved (*S. nigra laciniata*). The foliage of this variety is deeply cut and incised, lending an airy, fern-like aspect. Very vigorous growth.

Variegated-leaved (*S. nigra variegata*). A hardy, variegated species. Makes a fine and showy appearance.

EUONYMUS Americanus (Strawberry Bush). Very ornamental and showy, its brilliant dark red berries, which hang in clusters from the branches until mid-winter is its chief beauty. The contrast is very fine when planted with a background of evergreens. Leaves scarlet in autumn.

Europæus (European Euonymus). A large, erect shrub, or low tree, sometimes 30 feet high; the fruit is rose-colored.

EXOCHORDA grandiflora. A vigorous-growing shrub, forming a neat, compact bush, 10 to 12 feet high; flowers pure white, borne in slender racemes, of eight to ten florets each. Perfectly hardy. Unquestionably one of the floral gems.**FILBERT, Purple-leaved** (*Corylus purpurea*). A large shrub, with deep purple leaves. Very ornamental and produces fine edible fruit.**FORSYTHIA** (Golden Bell) *viridissima*.

A large, hardy shrub, with dark green leaves and bright yellow flowers very early in spring.

Fortunei (Fortune's Forsythia). Of upright growth, with deep green foliage and bright yellow flowers.

Suspensa (Weeping Forsythia). Of graceful, drooping habit; the flowers resemble those of Fortunei.

HALESIA tetraptera (Silver Bell). Drooping branches laden in spring with pretty white, bell-shaped flowers resembling those of the fuchsia.



BUSH HONEYSUCKLE



SINGLE WHITE LILAC

HONEYSUCKLE, Red Tartarian (*Lonicera Tatarica rubra*). A useful old-fashioned shrub, with bright pink flowers which appear in May.

White Tartarian (*L. Tatarica alba*). Similar to the preceding, but with dull white flowers.

Fragrant (*L. fragrantissima*). A spreading shrub, with deep green foliage and small fragrant flowers which appear before the leaves; the foliage is almost evergreen.

Siberian (*L. Alberti*). Dwarf. Half-trailing shrub, with tiny leaves and deliciously fragrant, violet-blue flowers.

HYDRANGEA paniculata grandiflora. From July to November there is no shrub more showy than this favorite Hydrangea. Its large, showy panicles of white flowers hang in the greatest profusion. It is quite hardy and very beautiful planted as a single specimen on the lawn or in the margin of masses. Prune severely in the spring to produce the largest flowers.

Arborescens grandiflora sterilis (Hills of Snow). Pure white, the flower-clusters remaining intact long after the leaves have fallen. Grows 5 to 6 feet high, and when in full bloom is one of the most striking as well as the most beautiful shrubs of its season.

JASMINE, Yellow (*Jasminum nudiflorum*). Has long, slender branches and small, deep green leaves. Richly scented yellow flowers, borne profusely through the spring and summer.

KERRIA (Corchorus) Japonica. A slender, green-branched shrub, 5 to 6 feet high, with globular yellow flowers from July to October.

LILAC, Persian (*Syringa Persica*). The Lilac among shrubs is like the maple among trees. This variety is a native of Persia and grows from 4 to 6 feet high, with small foliage and bright purple flowers.

Lilac, White Persian (*S. Persica alba*). White flowers delicately tinted with rose.

Large-flowering White (*S. alba grandiflora*). A beautiful variety, with large panicles of pure white flowers. Considered the best white variety.

Common (*S. vulgaris*). The well-known, old-fashioned Lilac, so often seen in gardens. The flowers are bluish purple and very attractive.

Persian Cut-leaved (*S. Persica laciniata*). A variety with deeply cut leaves and reddish purple flowers.

Rouen (*S. Rothomagensis*). A distinct hybrid variety, with reddish flowers; the panicles are of great size and very abundant. One of the finest Lilacs.

VARIETIES OF SYRINGA VULGARIS

Abel Carrier. Double. Flowers, large, blue, reverse of petals rose.

Charles X. Single. Strong, rapid grower; trusses large, rather loose; reddish purple. Very popular.

Charles Joly. Double. Very dark reddish purple; superb.

Emile Lemoine. Double. Flowers very large, rose lilac.

Leon Simon. Double. Panicles compact; flowers bluish crimson.

Ludwig Spaeth. Single. Panicles long; individual flower large, dark purplish red. The finest of its color.

Madame Lemoine. Double. White; superb.

Marie Legraye. Single. Panicles of white flowers. One of the best.

President Grevy. Double. A beautiful blue; very large; the panicle is magnificent, measuring 11 inches in length and 5 inches across. One of the finest Lilacs.

LESPEDEZA bicolor (Shrubby Bush Clover). Small purple flowers produced in nodding racemes.

MYRICA cerifera. A low-spreading shrub, with handsome foliage and small white berries in autumn. Partially evergreen.

PLUM, Flowering (*Prunus triloba*). Semidouble flowers of a delicate pink, closely set along the slender branches, early in spring. A valuable addition to the early shrubs, and very ornamental.

PURPLE FRINGE (Smoke Tree; *Rhus Cotinus*). A shrub or small tree of spreading habit, covered in midsummer with a profusion of dusty, fringe-like flowers. Very much admired and desirable for the striking peculiarity of its flowers.

PRIVET, Common (*Ligustrum vulgare*). A tall shrub, with delicate foliage, white flowers in dense, upright panicles and bunches of black berries. In warmer climates it is evergreen, the leaves hanging on very late. Valuable as a hedge plant.

California (*L. ovalifolium*). A large shrub of upright habit, nearly evergreen; produces delicate white flowers in great profusion; they possess a pleasant heliotrope fragrance. This is the most popular hedge plant.

Amoor. (*L. Amurense*). Erect habit; almost evergreen. More hardy than California.

Chinese (*L. Itoha*). Flowers large, white, very fragrant, produced in great profusion; the leaves are long and shining.

Privet, Regel's (*L. Regelianum*). Spreading branches. A prostrate form of the Chinese Privet.

PHILADELPHUS (*Syringa*, or Mock Orange). All the species and varieties have white flowers, many of them quite fragrant. They are vigorous growers and are very valuable for backgrounds, screens, groupings and specimens.

Grandiflora (Large-flowered Mock Orange). Conspicuous and showy, with large flowers and irregular branches.

Coronarius (Common, or Garland Mock Orange). A well-known, hardy shrub, with pure white, sweet-scented flowers. One of the first to flower.

Foliis aureis (Golden-leaved Mock Orange). A pretty dwarf form with golden yellow foliage. It retains its color throughout the season. Valuable for contrasting with purple-leaved shrubs.

Lemoinei erectus. Upright growth; flowers fragrant, yellowish white, completely covering the plant.

Mont Blanc. Of upright growth, and small leaves; flowers very fragrant.

PTELEA trifoliata (Hop Tree). A large shrub or small tree, with clusters of white flowers in June.

Aurea (Golden-leaved Hop Tree). Beautiful glossy golden foliage.

QUINCE, Japan Scarlet (*Cydonia Japonica sanguinea*). A well-known and esteemed shrub with a profusion of bright scarlet flowers in early spring. Makes a beautiful and dense hedge.

Japan Blush (*C. Japonica alba*). Same as above but with delicate white and blush flowers.

Grandiflora. Flowers nearly white and very showy. The fruit is extremely large and almost pear-shaped.

RHODOTYPUS Kerrioides. From Japan. A medium-sized ornamental shrub, with handsome foliage and large, single white flowers late in May succeeded by numerous small fruits.

RHUS (Sumac) **Cotinus.** See Purple Fringe.

Glabra laciniata (Dwarf Cut-leaved Sumac). Finely divided leaves, crimson in the fall.

Typhina laciniata (Staghorn Sumac). A large shrub, with brilliant foliage and scarlet fruit in autumn.

SNOWBERRY (*Symphoricarpos racemosus*). A small shrub, with clusters of rose-colored flowers early in spring, followed by waxy white berries, which hang on through part of the winter. Quite hardy and very ornamental.

SPIRÆA Bumalda. A very handsome Japanese species, of dwarf, compact habit. A mass of bright rose-colored flowers cover the plant during midsummer and autumn.



PHILADELPHUS CORONARIUS



SPIRÆA ANTHONY WATERER

Spiræa Anthony Waterer. An improvement on Bumalda, forming a low bush $1\frac{1}{2}$ feet high, covered all summer with small flat heads of bright pink or solferino flowers. Beautiful for edging and desirable in front of shrubbery.

Billardi (Billard's Spirea). Erect branches, crowned with narrow, dense spikes of rose-colored flowers nearly all summer.

Callosa alba (Fortune's Dwarf White Spirea). All summer there are white flowers in flat clusters on this bushy shrub. Dwarf habit.

Douglasi. Spikes of beautiful deep rose-colored flowers in July and August.

Rosea. Panicles of pretty rose-colored flowers.

Prunifolia (Plum-leaved Spirea). Flowers white and very double, like English daisies, which bloom profusely in April. The foliage turns a beautiful bronze color in autumn. An old-fashioned erect shrub that is still popular.

Reevesiana, or lanceolata (Lance-leaved Spirea). Narrow pointed leaves and large, round clusters of white flowers that cover the whole plant.

Thunbergia (Thunberg's Spirea). A graceful bush, with innumerable small white flowers; leaves narrow. Valuable for forcing. Very early flowering.

Van Houttei. Among the very finest of flowering shrubs and the most charming and popular Spirea. It has pure white flowers an inch in diameter, in clusters or panicles. The profusion of bloom weighs the slender branches down and covers the bush with a canopy of white. The plant is remarkably vigorous and hardy. Excellent as a single plant or for grouping.

Spiræa opulifolia aurea. Golden yellow tinted leaves and double white flowers in June. A very conspicuous and valuable variety.

Semperflorens. Red flowers in corymbs

Tomentosa Flowers in deep panicles. Valued for low places and wild effects.

STEPHANANDRA flexuosa. A compact-growing shrub, with small, hawthorn-like leaves and bunches of small white flowers early in June.

TAMARIX Africana. Small leaves somewhat like the Juniper, and delicate, small pink flowers in spikes in May. Very ornamental at the back of shrubbery.

Gallica. Delicate pink or white flowers in slender paniced racemes; leaves bluish green.

Japonica. A handsome Japanese form, with pink flowers in lateral sprays from 1 to 2 inches long on previous year's branches.

VIBURNUM Lantana. A large, robust shrub, with soft, heavy, lantana-like leaves and large clusters of white flowers in May, succeeded by red fruits; retains its foliage very late.

Opulus (High-Bush Cranberry). Its red berries, resembling cranberries, hang until destroyed by frost late in the fall. Flowers white in drooping flat cymes.

Plicatum (Japan Snowball). A rare and very beautiful species. Pure white flowers in globular heads. One of the best ornamental shrubs. Grows 6 to 8 feet high, and erect and compact.

Sterile. The old-fashioned Snowball. Of large size, with globular clusters of white flowers in June.



WEIGELA ROSEA

VITEX Agnus-castus cœrulea. Blue flowers. Blooms through August and September. Is valuable on account of blooming when so few flowers are in bloom.

alba. White flowers.

WEIGELA Desboisi. Deep rose-colored flowers, resembling Rosea, but much darker. One of the darkest varieties.

Eva Rathke. The very best red-flowered variety. A continuous bloomer.

Rosea. A strong grower and profuse bloomer. Flowers pink, rose and white. May and June.

Van Houttei. Dark rich crimson flowers in great abundance; darker than Desboisi.

Folia variegata. The leaves are bordered with yellowish white and finely marked. Flowers bright pink.

Weigela candida. This is the best and most popular white variety. Of large size, erect and vigorous growth. Produces pure white flowers in June and July in great profusion. A valuable feature is that it blooms moderately throughout the summer, making it very valuable.

WHITE FRINGE, Virginian (*Chionanthus Virginica*). A large shrub that grows easily and is generally desirable. Superb foliage and delicate fringe-like white flowers in open clusters, succeeded by small bluish plum-like fruits.

XANTHOCERAS sorbifolia. A very popular new shrub. The flowers are white, with crimson center, and expand about the middle of May. It should be severely pruned when transplanted.

EVERGREEN SHRUBS

These "Broad-leaved Evergreens" are being used more and more each year because they are so desirable and effective in landscape work. As a rule, they transplant easily, are quite hardy, and give immediate results.

HOLLY, Green-leaved (*Ilex aquifolium*). Deep green, glossy foliage, with bright red berries through the winter. The berried twigs are familiar decorations at Christmas time.

MAHONIA aquifolia (Holly-leaved Ashberry). Glossy holly-like leaves which change to brownish green in winter. Clusters of bright yellow flowers in May. Makes a good hedge, and desirable for rockeries and shrubbery groups.

RHODODENDRONS. In early summer there are no flowers more gorgeous than the Rhododendrons, which are then all aglow with their great masses of bloom, and rich green foliage. They flourish best in peaty soil, and, like azaleas, are the most effective when grouped. Plant in sheltered locations in moist soils free from limestone. The Catawbiense varieties have lilac-colored flowers and are perhaps the most hardy sorts. The most magnificent of all evergreen shrubs.



HEDGE OF CALIFORNIA PRIVET

HEDGE PLANTS

The value of hedges in ornamental planting, for screens and the protection of orchards, farms and gardens is being realized. They also protect the fruit against the fierce winds, as there is not so much danger from blowing off. Some writers tell us that the temperature is warmer in the vicinity of evergreens. However this may be, we know that our gardens are earlier and our fruits ripen better when protected by such screens.

Evergreens and deciduous hedges are becoming very popular as boundary lines between neighbors or divisions between the lawn and garden, and deservedly so, for nothing is more beautiful than a well-kept hedge. By using medium-sized plants, a hedge can be made very cheaply, every year becoming more and more "a thing of beauty."

To secure a good hedge, dig a deep, wide trench and work the soil thoroughly about the roots; press the ground firmly, and mulch heavily for a distance of 2 or more feet on either side, according to the size of the plants. This is especially necessary with evergreens, and all exposure of the roots to the sun and air must be avoided.

Evergreens should be pruned in the spring just before they commence growing. Arborvitae, Cedars, etc., may be pruned in the summer.

Evergreen Hedge Plants

ARBORVITÆ, American. One of the finest evergreens for screens. It is very hardy, easily transplanted, grows rapidly and with little care. In three or four years it forms a most beautiful, dense hedge.

Siberian. This is also well adapted for hedges. Of a rich color and more compact than the American. Very hardy.

SPRUCE, Norway. Forms a beautiful and desirable screen or shelter. Where a rapid and high growth is required, as for sheltering from cold winds, planting on the borders of grounds and plantations, this is the most valuable hedge. With careful pruning it can be kept low and in good shape, thus making it highly ornamental.

For shelter belts and screens in orchards and other places, we recommend the **Norway Spruce** (page 28), **Scotch** (page 28), **Austrian** (page 28), and **White Pines** (page 28).

Deciduous Hedge Plants

PRIVET. The most popular and universally planted deciduous hedge. Plant 6 to 8 inches apart and keep cut back well after the first year. When trained well is one of the most ornamental hedges for lawns and cemeteries.

QUINCE, Japan. Grows very compactly and will submit to any amount of pruning. The brilliant scarlet flowers make it exceedingly attractive.

The following are also very desirable hedge plants: **Barberries** (page 30), **Roses** (page 41), **Althæas** (page 29), **Spiræas** (page 34), **Tartarian Honeysuckle** (page 32).



CLEMATIS PANICULATA

HARDY CLIMBING AND TRAILING VINES

AMPELOPSIS Veitchii (Boston Ivy; Japan Creeper). The most popular Ivy for covering buildings and walls. The foliage is smaller than the American and more dense, forming a sheet of green. The plant is a little tender when young and should be protected the first winter; when once established, it grows rapidly, the tendrils holding tenaciously to any support. The foliage changes to crimson in fall, which makes it a very beautiful ornament to a brick or stone structure.

Quinquefolia (Virginia Creeper). A native variety of rapid growth, with large, luxuriant foliage, which assumes a beautiful rich crimson color in autumn. The inconspicuous blossoms are succeeded by handsome dark blue berries. The vine is supposed to take the place of the English Ivy, and in summer is not inferior to that variety.

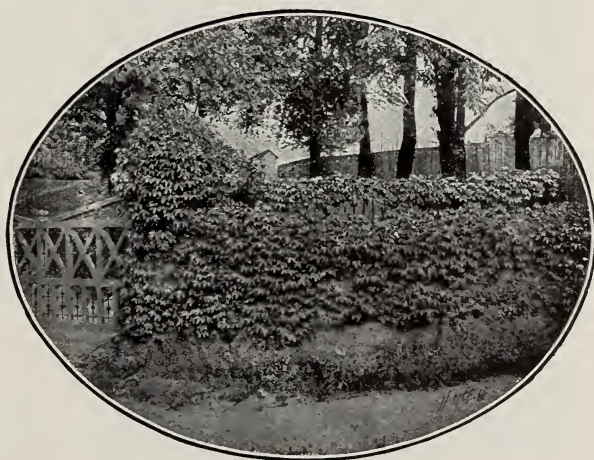
ARISTOLOCHIA Siphon (Dutchman's Pipe; Birthwort). A strong, hardy-growing vine, with leaves 8 to 12 inches across. The corolla of the brown flower is shaped like the bowl of a pipe.

AKEBIA 'quinata'. A perfectly hardy, fast-growing Japan vine with magnificent foliage and large clusters of chocolate-purple flowers possessing a most delicious perfume. Unsurpassed for covering trellises and verandas, as the foliage is never attacked by insects. Is very handsome and graceful.

BIGNONIA radicans (Scarlet Trumpet Flower). Our well-known native species, with clusters of large trumpet-shaped scarlet flowers in August.

Grandiflora (Large-flowering Trumpet Flower). The flowers are larger and earlier than the preceding, but the vine is not so hardy.

CELASTRUS scandens (Bittersweet; Staff Tree). A well-known native climber of powerful growth; the foliage is bright and shining. Is quite ornamental in winter on account of its orange-scarlet seed vessels, displaying their crimson seeds. Should be largely planted, as it is one of the most luxuriant climbers grown.



AMPELOPSIS VEITCHII

CLEMATIS. The different varieties of Clematis now in cultivation vary greatly in their foliage and flowers, and are adapted to various uses. The large-flowered varieties, when trained on trellis and over porches, pillars and rock-work, producing their great masses of bloom, make a beautiful appearance, especially when contrasting colors are in proximity. Good, deep, sandy loam, mulched in winter with well-rotted manure, in partial shade and with a liberal supply of water at the roots, will produce vigorous plants and rich sheets of bloom.

Henryi. Large, pure white, handsome flowers. One of the best long bloomers among this class of climbers.

Jackmani. This is the most popular large-flowering variety. The flowers are from 4 to 6 inches in diameter, of an intense violet-purple color, borne successively in continuous masses on the summer shoots. Generally considered the best Clematis of its color.

Jackmani alba. A fine variety of the preceding, but with pure white flowers; large-flowering.

Mme. Edouard Andre. A great novelty. Flowers large, of beautiful bright velvety red; very free-flowering and continue all summer.

Ramona. A strong, rampant grower and very hardy. A free and perpetual bloomer of very large, deep sky-blue flowers.

Clematis paniculata (Sweet-scented Japan Clematis). A Japanese plant possessing unusually attractive merits. Of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy green foliage. The flowers are of medium size, pure white, borne in immense sheets and of a most delicious fragrance. The flowers appear in September, a season when very few vines are in bloom.

EUONYMUS radicans. An evergreen species with small glossy leaves. Clings to walls or rocks, for which it makes a splendid cover.

Variegata. Differs from the above in that it has pretty creamy white markings on the leaves that make it valuable for contrasts.

HONEYSUCKLE, Monthly Fragrant (*Lonicera Belgica*). Very sweet, red and yellow flowers all summer.

Common Woodbine (*L. Peridymenum*). A strong, rapid grower. The flowers are very showy, being red outside and buff inside. June and July.

Chinese Twining (*L. Japonica*). Blooms in July and September and is very sweet. Holds its foliage nearly all winter.

Hall's (*L. Halleana*). The most popular variety. Nearly evergreen. The flowers are pure white, changing to yellow, produced abundantly and have the fragrance of the jessamine. Probably more grown than any other variety.

Scarlet Trumpet (*L. semper-virens*). This and its varieties are the handsomest in cultivation. A strong, rapid grower, producing scarlet, inodorous flowers all summer.

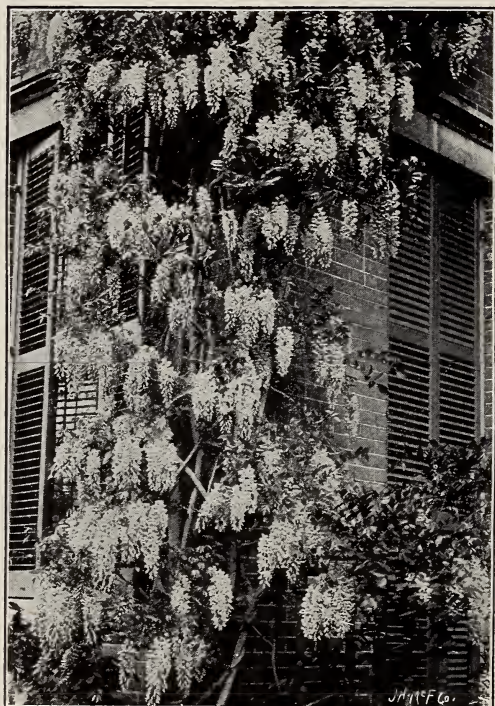
Semperflorens. A profuse bloomer of yellow flowers tinged with white; not so fragrant as Halleana.

LYCIUM Chinese (Matrimony Vine). A hardy plant that serves as a vine or shrub. Slender, drooping branches bear pink and purple flowers from June until September, and are succeeded in winter by scarlet and orange fruits. This vine grows anywhere, and is, on this account, a good plant to withstand abuse and neglect.

VINCA Minor (Common Periwinkle, or Blue Myrtle). Evergreen verdure and handsome blue flowers. Compact, creeping habit forming a solid covering.

WISTARIA, Chinese (*Wistaria Sinensis*). A rapid-growing, tall vine, with handsome foliage and flowers, which are produced in long, pendulous clusters of a pale blue color. It is very hardy and one of the most superb vines ever introduced.

American White. A native seedling with pure white flowers on short bunches. A free bloomer.



WISTARIA SINENSIS



RHODODENDRON PLANTING (see page 35)

List of Trees and Shrubs for Special Purposes

For the benefit of patrons who have not had opportunity of observing the general growth and appearance of various kinds of trees, evergreens and shrubs, we give the following lists, by which they will be better enabled to make selections, descriptions of which can be seen in their proper places in this catalogue.

Trees Adapted to Streets, Avenues, Parks and Large Grounds

White Elm	Sugar, or Hard Maple	Carolina Poplar
Flowering Horse-Chestnut	Silver, or Soft Maple	White Ash
American Linden	Catalpa	Box Elder
European Linden	Lombardy Poplar	
Norway Maple	Tulip Tree	

Trees, Evergreens and Shrubs for Parks, Extensive Grounds, Lawns, City Lots, Etc.

Cut-leaved Alder	Liquidambar	Plum (<i>Prunus Pissardi</i>)
Cut-leaved Weeping Birch	Lindens (all varieties)	Salisburya
Catalpa	Magnolia	Tulip Tree
Dogwood	Maples, Wier's Cut-l'v'd	Weeping Elm
Horse-Chestnut	Purple-l'v'd and Norway	Kilmarnock Weeping Wil-
Judas Tree	Mountain Ash (all varieties)	low
Koelreuteria	Mulberry (all varieties)	Wisconsin Weeping Willow
Laburnum		

Evergreens

ARBORVITÆS.—American, Compact, Golden, Globe, Hovey's Golden, Pyramidal, Siberian.

BALSAM FIR.

PINES.—Austrian, Scotch, White and Dwarf.

JUNIPERS.—Irish, Savin, Red Cedar.

SPRUCE.—Excelsior, Colorado, Black, Hemlock.

Shrubs

Altheas (all varieties)	Forsythia	Fringe, Purple, White
Almonds, Dwarf, White, Pink	Filbert, Purple-leaved	Quince, Japan
Barberry (all varieties)	Halesia	Snowberry
Calycanthus	Honeysuckle	Spirea (all varieties)
Deutzias, Assorted	Hydrangea paniculata	Snowball (all varieties)
Elders (all varieties)	grandiflora	Syringas (all varieties)
	Lilac (all varieties)	Weigelas (all varieties)

ROSES

Hybrid Perpetual, or Remontant Roses

The Hybrid Perpetual Roses comprise the Roses for the multitude. They are mostly hardy, vigorous and of easy cultivation. As a general rule, they thrive best in well-prepared loam. Close pruning is generally required, but should be regulated to some extent by the rate of growth of each variety, those of vigorous habit not requiring so much as those of slow growth. The colors range from the purest white to the deepest crimson. The term perpetual might lead some to think that they are as constant bloomers as the everbloomers, but this is not the case. They flower freely in June and at short intervals during the summer and fall.

Remedy for Mildew. The mildew is perhaps the most injurious disease. It is generally caused by extremes of heat and cold, and by a long continuance of damp, cloudy weather. The best remedies are sulphur and soot; one of these should be applied as soon as the disease makes its appearance. It is a good plan to sprinkle the plants with water so that the substance applied will adhere.

Alfred Colomb. Bright, clear carmine-red; large and of good form; very fragrant. One of the best of its class.

American Beauty. An everblooming Hybrid Perpetual. The flowers are very large, of beautiful form and very double; deep rich rose color. Its fragrance resembles LaFrance. This is the most popular Rose grown.

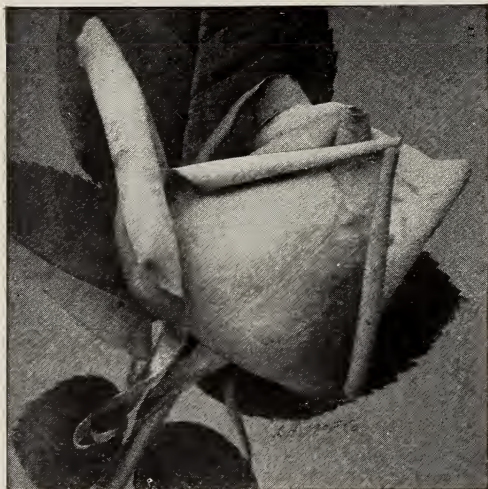
Anna de Diesbach. A beautiful shade of carmine; moderately full and very large. A vigorous grower and fine bloomer. One of the really good Roses.

Baronne de Maynard. Flowers pure white, of medium size, good form and very double. One of the most persistent bloomers.

Black Prince. Dark velvety crimson, almost black. A good grower and a most magnificent Rose.

Baron de Bonstetten. Rich velvety maroon; large, full and fragrant. A splendid sort.

Clio. The flowers of this magnificent Rose are perfect in form with fine, broad petals. The color is a delicate satin blush, with a light shading of rosy pink at the center. Very free-blooming and a strong, healthy grower. The flowers are very beautiful at all stages of development.



ANNA DE DIESBACH

Coquette des Alpes. White, lightly shaded with carmine; of medium size; a free bloomer.

Coquette des Blanches. Pure white, flowering in clusters; a very free bloomer.

Dinsmore. Deep crimson, large and very double; flowers very freely the whole season. The plant is very dwarf and bushy, every shoot producing a bud.

Frau Karl Druschki. Pure paper-white, large and free-flowering. A very handsome plant, with bright, heavy foliage and strong upright growth. The bloom is of perfect form, on fine long stems. The finest Rose in color, form and general finish.

General Washington. Brilliant rosy crimson; large and double.

General Jacqueminot. Crimson-scarlet; very showy and effective. A magnificent variety.

Hermosa. Beautiful clear rose; very double and fragrant, blooming in clusters; hardy and a constant bloomer. One of the best Roses.

Jules Margottin. Light, brilliant crimson; large, full and beautiful.

John Hopper. Deep rose, with crimson center.

La Reine. Deep rosy lilac; large, full, sweet and double.

Marshall P. Wilder. Resembles Alfred Colomb in color, but said to be more vigorous and hardy.

Mme. Chas. Wood. Flowers extra large, full and double, of a deep rosy crimson color, sometimes brilliant scarlet, with maroon shadings. It blooms soon after planting out and continues all summer. One of the most beautiful Hybrid Perpetual Roses.

Margaret Dickson. Of magnificent form; white, with pale flesh center; petals very large, well-shaped and of great substance; fragrant. Foliage very large dark green. A very promising variety.

Magna Charta. Prized on account of its strong, upright growth and bright, healthy foliage, and magnificent bloom. Beautiful bright pink, suffused with carmine. A general favorite.

Paul Neyron. Deep rose color; good foliage. The largest Rose in cultivation. Free bloomer.

ROSES, continued

Prince Camille de Rohan. Deep, velvety crimson; large, moderately full. A splendid Rose.

Ulrich Brunner. Raised from Paul Neyron. Brilliant cherry-red—a very effective color; flower of fine form and finish. Plant vigorous, hardy and resists mildew. One of the best varieties.

Moss Roses

The beauty of this type of Roses consists largely in the delicate mossy covering surrounding the bud. Some of them blossom in the fall and are called "Perpetual Moss."

Blanche Moreau. Pure white; large, full and of perfect form.

Countess of Murinais. White, slightly tinged with flesh. The best of the Moss Roses.

Perpetual White. Pure white; blooms in large clusters.

Princess Adelaide. Blush, becoming quite pale; very double and well formed. The most vigorous grower of the class.

Salet. Clear Rose; very double; a vigorous grower and abundant bloomer. Perpetual.

Climbing Roses

The Climbing Roses are becoming more popular every year and deservedly so on account of the uses to which they are suited. They are well adapted for training against pillars, over porches or any other supports, and produce a brilliant effect by the wonderful profusion of their flowers, which appear in early summer. They are of rapid growth, perfectly hardy and have luxuriant foliage.

Baltimore Belle. Pale blush, almost white. Very beautiful and fragrant.

Crimson Rambler. This charming climbing Rose is unquestionably an acquisition, a novelty of high order, and most distinct in its characteristics. It is of vigorous habit, strong and rapid grower, with handsome, shining foliage, and produces in great abundance clusters of the brightest crimson semi-double flowers. Its showy clusters, abundance of bloom and length of time the flowers hang on the plant without losing their brilliancy, are qualities which make it a favorite. As hardy as the Prairie Queen. Very desirable for verandas, walls, pillars and fences.

Dorothy Perkins. This new Rose is of the same strong habit of growth as the Crimson Rambler, the flowers being borne in clusters of 30 to 60. The flowers are large for a Rose of this class, very double, sweetly scented, and of a beautiful shell-pink color. Absolutely hardy.

White Rambler (Thalia). Identical with Crimson Rambler, in habit of growth, foliage and manner of blooming, differing only in color, which is pure, clear white.

Yellow Rambler. (Agalia). A new hardy yellow climbing Rose, blooming in the same manner as the Crimson Rambler; the flowers are of medium size and very



MARGARET DICKSON

sweet-scented. The color is a clear decided yellow. Has successfully withstood a temperature of from zero to two degrees below. A rampant grower.

Greville, or Seven Sisters. Purplish crimson and pink.

Queen of the Prairie. Bright rose; large and double. Very vigorous.

Miscellaneous Hardy Roses

Harrison's Yellow. Bright yellow; double. Very showy and fine.

Madame Plantier. One of the finest pure white Roses, blooming in clusters.

Persian Yellow. Deep golden yellow flowers of medium size. Double, and very fine.

Rugosa alba. A splendid single white variety. Highly scented.

Rugosa rubra. Bright rose-crimson. The flowers are succeeded by red berries. A very handsome shrub.

Multiflora. Covered in June with very fragrant clusters of small semi-double flowers. Valuable in shrubbery borders and to produce a wild effect.

Setigera (Prairie Rose). Single deep rose-colored flowers. A splendid sort for natural planting. It blooms profusely in June.

Sweet Brier. The rosy pink flowers are followed in autumn by bright-colored seed-pods; foliage very fragrant.

Wichuraiana (Memorial Rose). Beautiful small evergreen foliage. A grand trailer over all sorts of places. Fragrant, single, waxy white flowers are borne profusely in June.

Baby Rambler. One of the most practical, all-round Roses ever put on the market. Rich crimson flowers in clusters as large as the popular Crimson Rambler, from which it is derived. Strictly a bush Rose and can be grown in the house the same as any of the old-time pot-plant varieties



PLANTING OF HARDY PERENNIALS

HARDY HERBACEOUS PERENNIALS

A planting of Hardy Herbaceous Perennials affords a display of bloom from earliest spring until after frost comes in the fall, and gives the owner flowers that may be cut at any time for house and table decoration. They will mostly live all winter in the open ground and bloom freely every year. The following are the best varieties:

CHRYSANTHEMUMS. These are the prettiest and most popular of the early-flowering winter plants. They bloom freely in November and December and nothing makes a more cheerful display. The prevailing colors are white, yellow and red. Should be planted in pots and

Chrysanthemums, continued

placed in the house where they will have the sun.

CASSIA Senna (Marylandica). The bright yellow, pea-shaped flowers are borne in clusters in July and August. A splendid herbaceous plant, growing from 3 to 4 feet high.

COREOPSIS lanceolata. Large golden yellow flowers; profuse bloomer throughout the summer.

DICENTRA (Dielytra) **spectabilis** (Bleeding Heart). A beautiful hardy border plant, with brilliant rosy heart-shaped flowers hanging in great profusion from a gracefully curved stem. May and June.

ERIANTHUS Ravennæ. Resembles Pampas Grass, but blooms more abundantly. Valuable for the decoration of lawns.

EULALIA Japonica. A vigorous grower, with large plumes.

Gracillima univittata. A beautiful ornamental grass, with narrow graceful foliage.

Zebrina. One of the most beautiful of the ornamental grasses; yellow stripes run across the leaves.

GAILLARDIA grandiflora (Blanket Flower). The center of the flower is a dark reddish brown, while the orange petals are differently marked with bands of scarlet and crimson.



JAPAN IRIS (see page 43)

HEMEROCALLIS flava (Yellow Day Lily). Large yellow flowers in clusters; very fragrant. May and June.

HOLLYHOCKS. No garden is complete without this grand, perfect and delicate flower. The flowers are as double and almost as pure and perfect as those of the camellia. Seeds sown in the spring will produce plants that bloom the second summer. Plants set out in the spring will flower about midsummer, and for several years, if not allowed to bloom too freely the first year.

IRIS, German (*Iris Germanica*). Popular herbaceous plants that come up year after year, and each season more floriferous than the previous. Desirable in shrubbery and borders, and are beautiful in groups by themselves. The flowers embrace a variety of colors and innumerable tints of blue, yellow and white.

Japan (*Iris Kämpferi*). Flowers differ from the German in being broad and flat. They exhibit a great variety of colors and shades, and appear later than the others.

PEONIES. These old-time favorites are being planted more than ever before. They all have showy, beautiful flowers, are perfectly hardy and flower early in the season before roses. They deserve a place in every garden. Are easily cultivated and require but little protection.



DOUBLE WHITE PEONY



HARDY PHLOX

Andre Lauries. Late, fragrant; red.

Delicatissima. Delicate fine rose; very large, full and sweet.

Eugene Verdier. Some Peony specialists consider this the finest variety grown. Large globular and very double flowers, bluish, delicately shading to pink. Late.

Festiva maxima. For over fifty years the standard of perfection in Peonies. Fine paper-white with a few carmine flakes.

Gigantea. Immense pink.

Grandiflora alba. Early white.

Grandiflora rosea. Beautiful dark pink.

Officialis rubra fl. pl. The old early crimson sort.

PHLOX. Familiar plants in old door-yards and valuable in all hardy borders. They are immense masses of bloom from the purest white to crimson. They grow 2 feet or more high and are perfectly hardy.

Alceste. Tall. Deep violet, shading to almost blue.

Phlox, Bridesmaid. Medium. Pure white, clear carmine eye; blooms in large, round heads. Very attractive.

Coquelicot. Medium. The finest and brightest red of all the Phloxes. The color is a bright orange-scarlet.

Jeanne d'Arc. Tall. Large pyramidal heads of immaculate white; late.

La Vogue. Tall. Pure mauve, with aniline-red eye. One of the best varieties in our collection.

Madame P. Langier. Medium. Clear crimson, deeper eye. Considered one of the best.

Maculata. Tall. Many branched, with huge pyramidal panicles of bright reddish, almost royal lavender. The freest and showiest of all Phloxes; a grand acquisition.

R. P. Struthers. Tall. In our estimation, this is the very best Phlox grown today—it has no faults. It is a clear cherry-red, suffused with salmon shades, and deep red eye; fine large truss. The color is so clear and clean that each individual floret stands out as distinct as a cameo.

PLATYCODON grandiflorum. Showy, bell-shaped blue flowers in June and July.

Album semi-plenum. White.

RUDBECKIA (Golden Glow). A hardy perennial, growing 6 to 7 feet high and producing hundreds of bright golden flowers 2 to 3 inches in diameter, on long, graceful stems, forming immense heads of bloom. When once well established, will furnish an endless amount of flowers.

YUCCA filamentosa (Adam's Needle; Spanish Bayonet). An interesting tropical-looking plant, with stems 3 feet above the ground, covered with large, bell-shaped flowers on laterals, forming a perfect pyramid. Thread-like leaves.



YUCCA FILAMENTOSA



GLADIOLI (see page 45)

Summer- and Autumn-flowering Bulbs

REQUIRE TAKING UP IN FALL. KEEP FROM FREEZING

BOUSSINGAULTIA (Bassilloides). Madeira Vine. An old, well-known, rapid-growing climber, with thick, fleshy leaves and white flowers. Fine for trailing on a porch over a window, or any place where a beautiful green is desired.

CANNAS. Stately and highly ornamental plants, for both flowers and foliage. They attain a height of from 2 to 5 feet, and may be grown singly or in masses. Leaves green or brownish red; flowers scarlet, crimson, yellow, cream, etc., variously marked.

DAHLIAS, Double. Well-known autumn-flowering plants, growing from 2 to 5 feet high, and producing a profusion of flowers of the most perfect and beautiful forms, varying in color from pure white to the darkest maroon. Becoming very popular

GLADIOLI. Of all our summer-flowering bulbs, the Gladioli stand eminently at the head as the most varied and beautiful class. The flowers are produced in spikes 2 feet high and upward, the brilliant scarlet and crimson of some form a striking contrast with the delicate shades and pencilings of the light-colored varieties. By planting at intervals from May 1 to June 15 a succession of flowers can be had from July to October.

TIGRIDIAS (Shell Flower). One of our favorite summer-flowering bulbs and of

Tigridias, continued

the easiest culture, displaying their gorgeous tulip-like flowers of orange and scarlet from July to October.

TUBEROSE, Double and Single. The flowers are very fragrant, on stems 3 to 4 feet high; blooms in autumn.

Pearl. More valuable than the common variety on account of its flowers being nearly double the size and imbricated like a rose, and in its dwarf habit, growing only 1½ to 2 feet.

Flowering Bulbs to Be Planted in the Fall

CROCUS. A universal favorite and one of the first flowers to bloom in the spring. In various colors. Should be planted about 2 inches deep.

HYACINTHS. The Hyacinth stands foremost in the list of all the bulbs used for winter-flowering. They are too well known to need description. Can be grown in glasses filled with water or in pots or boxes of soil.

JONQUILS. Pretty varieties of the Narcissi, having a very agreeable fragrance. Adapted to either pot culture or the open ground. The bulbs, being small, six or eight may be planted in a 6-inch pot.

LILY-OF-THE-VALLEY (*Convallaria majalis*). This is as hardy as any plant can possibly be, and when planted in the open ground will increase very rapidly.

NARCISSI, Garden Varieties. Admirably adapted to garden decoration in early spring. They are easily cultivated, are hardy, very showy and fragrant.

SNOWDROPS. These are the earliest of the spring-flowering bulbs, often blooming before the last of the snow has disappeared. Very much admired because of its elegant snow-white, drooping blossoms.

TULIPS. Owing to late spring frosts, bedding plants cannot be planted before the early spring-flowering plants are done blooming. Without these bulbs, for one or two months our gardens would present a bare appearance. There is nothing that will give a more gorgeous showing for the money invested, and nothing more easily grown than the Tulips. They thrive well in almost any soil. Plant during October and November



BED OF HYACINTHS AND TULIPS

FORMULAS

Bordeaux Mixture. Formula (the "normal" or 1.6 per cent): Copper sulphate, six pounds; quicklime (unslaked), four pounds; water, forty-five gallons.

If air-slaked lime is used in place of the fresh article, double the amount should be used; but the fresh is much more reliable. By combining the copper and lime it is found that the copper sulphate may be used more freely and with less injury than if used alone, and that it will adhere a long time to the foliage.

To make the Bordeaux mixture, dissolve the copper in hot water (or if placed in a coarse sack or basket, and suspended in a tub of cold water, it will dissolve in two or three hours, while if put in cold water on the bottom of a tub or vessel, it remains undissolved for a long time). Then in a separate tub slake the lime thoroughly, and when both are cold, pour the two together, stirring constantly. Dilute with water to make forty-five or fifty gallons of liquid. Before using, the mixture should be strained through a burlap or fine wire strainer to take out the coarse particles of lime.

If insects are found attacking the plants or trees to be treated for fungous growth, Paris Green may be added to the Bordeaux mixture at the rate of one pound to 100 or 200 gallons of the mixture, and the lime will prevent this large quantity of Paris Green from burning the foliage and two pests will be destroyed by one spraying. In spraying peach trees, use about one-third more water.

Ammoniacal Carbonate of Copper. In conspicuous places and on fruits just before ripening, the Bordeaux mixture is objectionable on account of the deposits of lime and copper that remain on the foliage or fruit, and, therefore, the above form of copper is used under such conditions. It is equally effective with the Bordeaux mixture while it remains on.

Formula: Three ounces copper carbonate, three quarts ammonia, or sufficient to dissolve the copper; the quantity depending upon its strength. When used, dilute to make twenty-five gallons of liquid.

Kerosene Emulsion. Formula: One-half pound common bar soap, two gallons of water, two gallons of common kerosene. Dissolve the soap in hot water; while still hot, add the kerosene and stir vigorously until a soft soap or cream-like substance is formed. When cold, dilute with water to make from ten to twenty-five gallons of liquid. This is used for the destruction of sucking insects, like aphides (plant-lice), scale insects, etc. Always use soft water.

Paris Green alone can be safely used only at the rate of one pound to 250 to 300 gallons of water; if, however, two pounds of lime is slaked in water and added to twenty-five gallons of water, at this rate one pound of Paris Green can be used in 100 gallons of water without injury to the foliage.

To prevent mildew, use one-half ounce potassium sulphide to one gallon of water



APPLE ORCHARD

SPRAYING CALENDAR

Experience and careful study into the habits of insects and the causes of rot, fungus and blight, that are so destructive to fruit trees, plants and fruits, has demonstrated the fact that spraying at the proper time and properly done, for the protection against these enemies of the horticulturist, is the best, if not the only remedy; and that it has succeeded and will succeed is evidenced by the rapidly increasing interest manifested in the manufacture, sale and use of spraying machines, and the good results obtained by those who practice this mode of protection.

It is impossible in a catalogue like this to give descriptions of insects, diseases, etc., but only a brief outline of how to prepare formulas and when and how to use them in order to effect a remedy, which will be found as follows:

We present this table to assist fruit-growers in spraying at the right time and with the correct solution.

VARIOUS APPLICATIONS OF SPRAYING SOLUTIONS

NAME OF PLANT	VARIOUS APPLICATIONS OF SPRAYING SOLUTIONS				INSECTS AND FUNGI
	First Spraying	Second Spraying	Third Spraying	Fourth Spraying	
Apple	When buds are swelling, apply Bordeaux.	Before blossoms open, Bordeaux. Add Paris green to the solution for canker worm or bud moth.	When blossoms have fallen, Bordeaux and Paris green.	Twelve days later, Bordeaux and Paris green.	Codling moth, canker worm, bud moth, apple scab.
Pear	Before buds swell, Bordeaux.	Before blossoms open, Bordeaux. Kerosene if psylla is present.	After blossoms fall, Bordeaux and Paris green.	Fourteen days later, Bordeaux and Paris green.	Codling moth, leaf light, scab and psylla.
Plum	Just before buds open, Bordeaux and Paris green.	After blossoms fall, Bordeaux and Paris green.	Twelve days later, Bordeaux and Paris green.	Kerosene when aphids or scale is present.	Curculio, rot, aphids and scale.
Cherry	Just before buds open, Bordeaux, Kerosene when Aphids is present.	When fruit has set, Bordeaux.	Twelve days later, Bordeaux, if signs of rot are present.	Kerosene if aphids is present.	Rot and aphids.
Peach	As buds are swelling, Bordeaux.	Before blossoms open, Bordeaux and Paris green.	After blossoms have fallen, Bordeaux and Paris green.	Two weeks later, Bordeaux and Paris green.	Rot, mildew and curculio.
Grape	When buds are beginning to swell, Bordeaux.	As buds are opening, Bordeaux.	Two weeks later, Bordeaux.	Two weeks later, Bordeaux.	Rot and other fungous diseases.
Currant and Gooseberry	When leaves appear, Bordeaux.	Ten days later, Bordeaux. Hellebore for worms; quassia and tobacco for Aphids.	Repeat second when necessary.	Ammoniacal copper carbonate after fruit is half-grown.	Mildew, worms, aphids.
Raspberry, Blackberry and Dewberry	When buds begin to swell, Bordeaux.	When leaves are opening, Bordeaux. Cut out all rusted canes.	Two weeks later (when not in flower), repeat second.	Before fruit is full size, ammoniacal copper carbonate solution.	Fungous diseases.

INDEX

	PAGE		PAGE		PAGE
Abies.....	28	Erianthus.....	33	Philadelphus.....	33
Acer.....	25	Elm.....	24, 27	Phlox.....	43, 44
Adam's Needle.....	44	Eulalia.....	42	Picea.....	28
Æsculus.....	24	Euonymus.....	31, 38	Pine.....	28
Ailanthus.....	23	Evergreen Shrubs.....	35	Pinus.....	28
Akebia.....	37	Evergreen Trees.....	28	Platanus.....	26
Alder.....	23	Exochorda.....	31	Platycodon.....	44
Almond, Flowering.....	29	Fagus.....	23	Plum, Flowering.....	33
Alnus.....	23	Filbert.....	31	Plums.....	12, 13
Althæa.....	29	Fir.....	28	Plum, Purple-leaved.....	26
Ampelopsis.....	37	Formulas.....	46	Podocarpum.....	30
Amygdalus.....	29	Forsythia.....	31	Poplar.....	26
Anemone.....	29	Fraxinus.....	23	Populus.....	26
Apples.....	5-8	Fringe.....	33, 35	Privet.....	33, 36
Apricots.....	14	Fruit Department.....	5-21	Prunus.....	26, 33
Aralia.....	29	Gaillardia.....	42	Ptelea.....	33
Arborvitæ.....	28, 36	Ginkgo.....	26	Pyrus.....	23
Aristolochia.....	37	Gladioli.....	45	Quercus.....	26
Ash.....	23	Gleditschia.....	24	Quince, Flowering.....	33, 36
Asparagus.....	21	Golden Glow.....	44	Quinces.....	15
Barberry.....	30	Gooseberries.....	19	Raspberries.....	18
Beech.....	23	Grapes.....	16, 17	Rhamnus.....	29
Berberis.....	30	Halesia.....	31	Rhododendrons.....	35
Betula.....	23, 27	Hedge Plants.....	36	Rhodotypos.....	33
Bignonia.....	37	Hemerocallis.....	43	Rhubarb.....	21
Birch.....	23, 27	Hemlock.....	28	Rhus.....	33
Bittersweet.....	37	Herbaceous Perennials.....	42-44	Red Bud.....	24
Blackberries.....	18, 19	Hercules' Club.....	29	Ribes.....	30
Blanket Flower.....	42	Holly.....	35	Robinia.....	24
Bleeding Heart.....	42	Hollyhocks.....	43	Rose of Sharon.....	29
Blue Spirea.....	30	Honeysuckle.....	32, 38	Roses.....	40, 41
Boussingaultia.....	44	Hop Tree.....	33	Rudbeckia.....	44
Box Elder.....	25	Horse-Chestnut.....	24	Salisburya.....	26
Buckthorn.....	29	Hyacinths.....	45	Salix.....	27
Bulbs, Summer and Autumn- Flowering.....	44, 45	Hydrangea.....	32	Sambucus.....	31
Butternut.....	23	Ilex.....	35	Scarlet Trumpet Flower.....	37
Button Bush.....	30	Iris.....	43	Service Berry.....	15
Calycanthus.....	30	Ivy, Boston.....	37	Shell Flower.....	45
Cannas.....	44	Jasmine.....	32	Silver Bell.....	31
Caragana.....	30	Jasminum.....	32	Smoke Tree.....	33
Caryopteris.....	30	Jonquills.....	45	Snowberry.....	33
Cassia.....	42	Judas Tree.....	24	Snowdrops.....	45
Catalpa.....	23	Juglans.....	23	Sorbus.....	25, 27
Ceanothus.....	23	Juneberry.....	15	Spiræa.....	33, 34
Cedar, Red.....	28	Juniper.....	28	Spraying Calendar.....	47
Celastrus.....	37	Juniperus.....	28	Spruce.....	26, 30
Cephalanthus.....	30	Kerria.....	32	Staff Tree.....	37
Cerasus.....	23	Kœlreuteria.....	24	Stephanandra.....	34
Cercis.....	24	Laburnum.....	24	Strawberries.....	20, 21
Cherries.....	13, 14	Larch.....	24	Strawberry Bush.....	31
Cherry, Flowering.....	23	Larix.....	24	Sumac.....	33
Chionanthus.....	35	Lespedeza.....	30, 32	Sweet Gum.....	24
Chrysanthemums.....	42	Ligustrum.....	33	Sweet Pepper Bush.....	30
Clematis.....	38	Lilac.....	32	Sweet-scented Shrub.....	30
Clethra.....	30	Lily-of-the-Valley.....	45	Sycamore.....	26
Convallaria.....	45	Linden.....	24	Symphoricarpos.....	33
Corchorus.....	32	Liquidambar.....	26	Syringa.....	32, 33
Coreopsis.....	42	Liriodendron.....	26	Tamarix.....	34
Cornus.....	24, 30, 31	Locust.....	24	Taxodium.....	23
Corylus.....	31	Lonicera.....	32, 38	Thorn.....	26
Crab Apple, Flowering.....	23	Lycium.....	38	Thuya.....	28
Crab Apples.....	7, 8	Magnolia.....	24, 25	Tigridias.....	45
Crataegus.....	26	Mahonia.....	35	Tilia.....	24
Crocus.....	45	Maidenhair Tree.....	46	Tree of Heaven.....	23
Cucumber Tree.....	24	Maple.....	25	Trees and Shrubs for Special Purposes.....	39
Currant, Flowering.....	30	Matrimony Vine.....	38	Tuberose.....	45
Currants.....	20	Mock Orange.....	33	Tulips.....	45
Cydonia.....	33	Morus.....	27	Tulip Tree.....	26
Cypress.....	23	Mountain Ash.....	25, 27	Ulmus.....	24, 17
Dahlias.....	44	Mulberries.....	15, 27	Varnish Tree.....	24
Day Lily, Yellow.....	43	Myrica.....	33	Viburnum.....	34
Deciduous Trees.....	23-27	Narcissi.....	45	Vinca.....	38
Deciduous Trees, Weeping.....	27	Nectarines.....	14	Vines.....	37, 38
Desmodium.....	30	Oak.....	26	Virgilia.....	27
Deutzia.....	30	Oleaster.....	31	Virginia Creeper.....	37
Dewberries.....	19	Olive.....	26	Vitex.....	26
Dicentra.....	42	Ornamental Department.....	22-45	Walnut, White.....	23
Dielytra.....	42	Ornamental Shrubs.....	29-35	Weigela.....	35
Diospyros.....	26	Paulownia.....	26	Wistaria.....	38
Dogwood.....	24, 30, 31	Peaches.....	9-11	Willow.....	29
Dutchman's Pipe.....	37	Peach, Flowering.....	26	Windflower.....	27
Elaeagnus.....	31	Pears.....	8, 9	Yellowwood.....	27
Elder.....	31	Peonies.....	43	Yucca.....	44
Empress Tree.....	26	Periwinkle.....	38	Xanthoceras.....	35
		Persimmon.....	26		



We can furnish large specimens of Shade and Ornamental Trees and Evergreens. By the use of derricks we handle them with a large ball of earth, and in this way are enabled to give to a new place the appearance of old established grounds.

We also carry a large supply of extra-heavy shrubs, which are splendid for giving an immediate effect.



The Kansas City Nurseries
GEO. H. JOHNSTON, Proprietor
KANSAS CITY, MO.